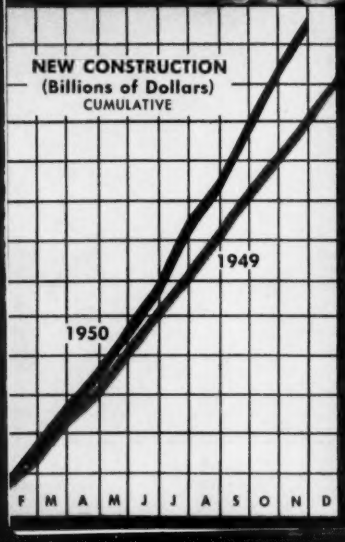
The CONSTRUCTOR

Volume XXXII DECEMBER 1950 Number 12



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AXLES

Increase the trade-in value of your trucks

Buyers of used trucks know that vehicles equipped with Eaton 2-Speed Axles have been spared much strain and wear. That's because the Eaton 2-Speed doubles the usual number of gear ratios—provides a low and high for each transmission gear—supplies the right ratio for any road condition. Its low low affords extra pulling power for starts, and high high gives faster road speed. This permits the engine to run without "laboring". . . results in less wear on vital power transmitting parts . . . less consumption of gas and oil.

Yes, Eaton Axles more than pay for themselves in reduced maintenance, lower operating costs and increased trade-in value. Ask your truck dealer for proof.

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PRODUCTS: SODIUM COOLED, POPPET, AND FREE VALVES • TAPPETS • HYDRAULIC VALVE LIFTERS • VALVE SEAT INSERTS • JET ENGINE PARTS • ROTOR PUMPS • MOTOR TRUCK AXLES • PERMANENT MOLD GRAY IRON CASTINGS • HEATER-DEFROSTER UNITS • SNAP RINGS SPRINGTITES • SPRING WASHERS • COLD DRAWN STEEL • STAMPINGS • LEAF AND COIL SPRINGS • DYNAMATIC DRIVES, BRAKES, DYNAMOMETERS

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You'll see why MORE TONS ARE HAULED ON GOODYEAR TIRES THAN ON ANY OTHER KIND

Cost Per Yard—that's the all-important factor that has made Goodyear tires the first choice of cost-conscious construction men.

And when it comes to dependable, timesaving traction, they swear by Goodyear's great Sure-Grip with its specially engineered O-P-E-N C-E-N-T-E-R tread and massive, balanced lug bars. The Sure-Grip is tops for drive-wheel traction on graders and pans—tops in terms of low cost per yard—low cost per operating hour—over-all low cost that makes your equipment earn more for you!

Goodyear's got the winning team of special-purpose tires

Here are two more great Goodyear tires for construction work—two more reasons why *it pays* always to BUY and SPECIFY Goodyear!

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Super-tough champ for all types of rock work

ALL-WEATHER
Finest for flotation, rolling big loads faster

Sure-Grip, All-Weather—T. M.'s The Goodyear Tire & Rubber Company, Akron, Ohio

GOODYEAR

We think you'll like "THE GREATEST STORY EVER TOLD"—Every Sunday—ABC Network

Vertical Assembly-Line Methods Mark Major Advance in Concreting Technique

● Mass production efficiency of the industrial assembly line has its counterpart in construction. Marble Hill Houses, latest in New York City Housing Authority's great project-a-month program, shows this principle at its finest and best—a vertical assembly-line spiralling 14 stories skyward.

Marble Hill consists of 11 identical 14-story buildings, 1,400,000 sq. ft. floor area. With 11 form sets, each used 14 times, CORBETTA CONSTRUCTION CO., INC. erected up to two stories per working day—*165 floors in 123 working days, averaging 1⅓ floors per working day.*

Time saved, four weeks per building—through sound planning and construction know-how, aided by always-dependable performance of 'Incor'*, America's FIRST high early strength Portland cement.

*Reg. U. S. Pat. Off.

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The CONSTRUCTOR

BUILDINGS • HIGHWAYS • AIRPORTS RAILROADS • PUBLIC WORKS

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COVER

Shown on this month's cover is a typical construction scene on New York State's 535-mile six-lane superhighway. It will cost an estimated $450 million and require three years for completion. It extends from New York City to the northwestern border of Pennsylvania via Albany and Buffalo. There will be extensions from the main highway to the western borders of Connecticut and Massachusetts. The highway will not have traffic lights, toll stations and intersections under present plans. For complete details, see page 38.

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follow the spots...

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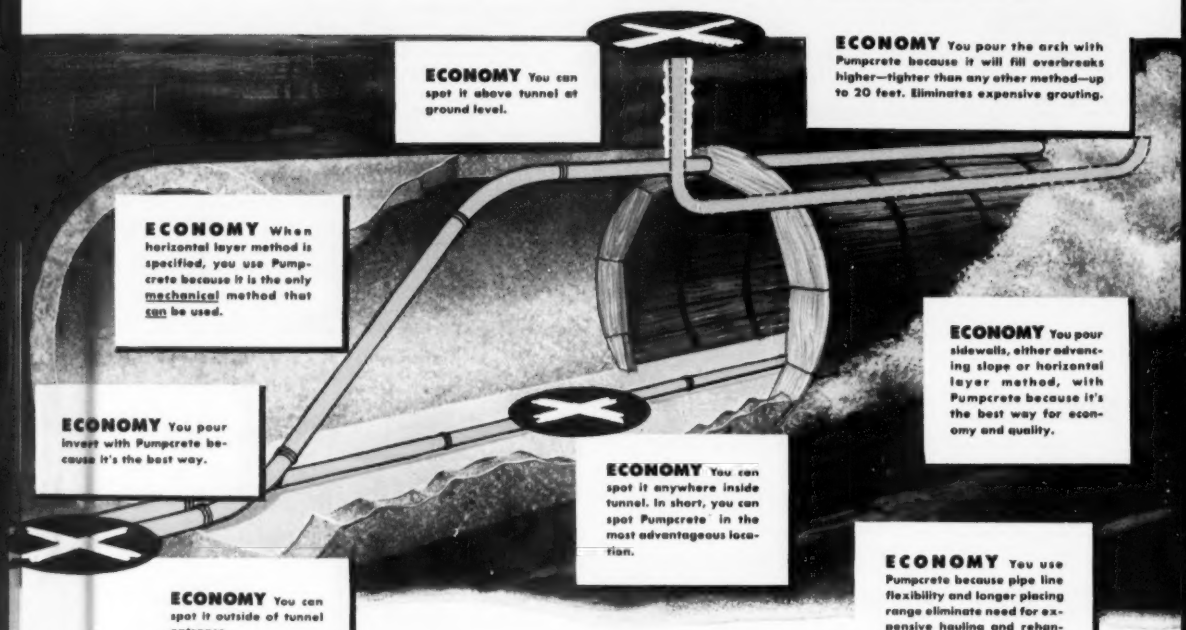

ECONOMY You can spot it above tunnel at ground level.

ECONOMY You pour the arch with Pumpcrete because it will fill overbreaks higher—tighter than any other method—up to 20 feet. Eliminates expensive grouting.

ECONOMY When horizontal layer method is specified, you use Pumpcrete because it is the only mechanical method that can be used.

ECONOMY You pour sidewalls, either advancing slope or horizontal layer method, with Pumpcrete because it's the best way for economy and quality.

ECONOMY You pour invert with Pumpcrete because it's the best way.

ECONOMY You can spot it anywhere inside tunnel. In short, you can spot Pumpcrete in the most advantageous location.

ECONOMY You can spot it outside of tunnel entrance.

ECONOMY You use Pumpcrete because pipe line flexibility and longer placing range eliminate need for expensive hauling and rehandling equipment—reduce labor requirements.

PUMPCRETE MEANS QUALITY— ASSURES A BETTER STRUCTURE . . .

QUALITY 1—Pumpcrete does not segregate concrete.

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QUALITY 3—Pumpcrete will handle stiffer mixes.

QUALITY 4—Pumpcrete reduces loss of slump between pump and point of placement.

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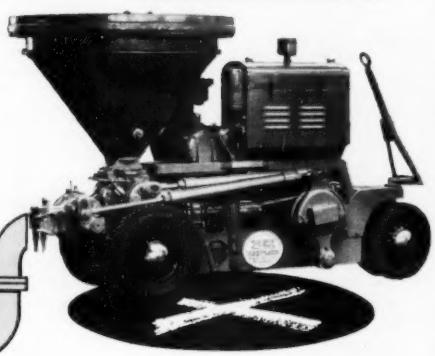
QUALITY 6—Pumpcrete assures a continuous flow of concrete to the forms . . . thereby eliminating many cold joints and related imperfections.

QUALITY 7—Pumpcrete is the only method that assures a tightly lined tunnel without need for grouting.



Ask your Rex distributor for the complete Pumpcrete story

BEFORE YOU LINE YOUR TUNNEL, SAVE MONEY BY ASKING TO SEE THE CHAIN BELT COMPANY'S EXCLUSIVE NEW FILM ON UNDERGROUND CONCRETE PLACEMENT.

CHAIN BELT COMPANY, 1625 West Bruce St., Milwaukee 4, Wis.

CHAIN BELT COMPANY REX CONSTRUCTION MACHINERY

Stronger controls loomed closer with ominous news from Korea. Cost of living index went up, carrying along with it an increase in wages for many workers. Other wage increases pending, with probable price increases resulting. No new major controls during month, but agencies still organizing, price agency head and Wage Stabilization Board members named. Symington reports nation in transition from "light gray" to "dark gray" stage of mobilization. (Page 23)

•

Construction volume still booming with around $28 billion new work expected to be put in place during 1950. Non-residential construction taking up some of slack from more than seasonal decline in residential. (Page 24)

•

Government sends out another urgent plea to banks for voluntary credit control as bank credit business spirals. (Page 24)

•

Defense plant construction and expansion beginning under government's offers of accelerated tax amortization, guaranteed loans, and direct loans. Machinery about completed for processing applications. Aluminum expansion being pushed. Jones & Laughlin Steel Corporation first to be given tax advantage for $144 million expansion. (Page 25)

•

Historic Boston will be the scene of A.G.C.'s 32nd annual convention, February 26-March 1, 1951, with the Associated General Contractors of Massachusetts as host. Sessions of the meeting will be held at the Hotel Statler, with the near-by Copley-Plaza housing some of the convention guests. Members who are planning to attend are urged to make their hotel reservations early and to make them through the Boston chapter—not to the hotels direct. (Page 31)

•

The proposed excess profits tax is meeting with considerable opposition on various fronts. A.G.C. recommendations for making such a tax less inequitable for contractors were presented to the House Ways and Means Committee on November 18. It was proposed that profits on these contracts be exempted: contracts awarded after competitive bidding; all operations entered into on fixed price prior to June 24; long-term contracts entered into prior to June 24; and negotiated fixed-price contracts subject to renegotiation. (Page 30)

•

The Territory of Alaska has the biggest building boom in its history. The extensive construction program includes all types—railway trackage and terminals, highways, airports, power plants, buildings and camps. Contractors from the United States are taking a real interest in Alaskan jobs and bidding is spirited. (Page 27)

•

A partial apportionment of the federal-aid highway appropriations voted last September has at last been made. It calls for 80 per cent of the total amount of $500 million annually. (Page 39)

•

Replacing the late Gayle G. Armstrong as candidate for vice president of The Associated General Contractors of America for 1951 is Arthur S. Horner, president of the A. S. Horner Construction Company of Denver, Colorado. He is chairman of the national organization's Heavy Construction and Railroad Contractors' division, and has long been active in A.G.C. affairs. (Page 51)

•

New York State is going a long way toward solving its complex traffic problems by building a 535-mile Thruway from New York City to the Pennsylvania state line via Buffalo. Like the famed Erie Canal, the project encountered considerable opposition; but all difficulties have now been removed and the work is well under way. It is a self-supporting venture to be paid for by Thruway bonds. (Page 38)

The eyes of the highway-building and truck-operating worlds are focused on the elaborate tests being made by the Highway Research Board and affiliated agencies on Route #301 south of LaPlata, Maryland. The tests extend over a six-month period, from June 23 to December 23, and go on continuously, 24 hours a day, seven days in the week. (Page 33)

•

Congress reconvened for a "lame duck session" on November 27. How long it will remain in session and how much it will accomplish depend largely on the pressure of the war effort. Additional defense appropriations will be asked and the president wants an excess profits tax and rent extension. It is believed that no action will be taken on the A.G.C.-sponsored war damage insurance bill.

•

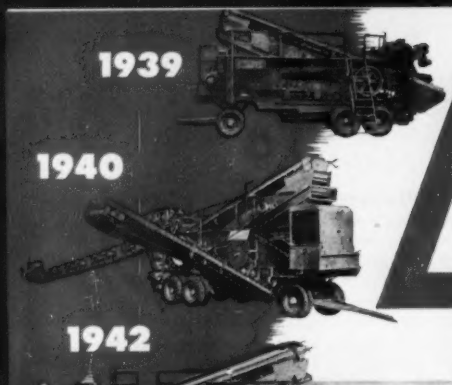
The sluggish Rio Grande of song and story which forms the boundary line between the great republics of the United States and Mexico is to be dammed at a point below Laredo, Texas. While the project is to be a 50-50 measure with each nation paying its share, the contracting firms holding the contracts are all-American and all-A.G.C. (Page 42)

•

Yorktown where Cornwallis surrendered his sword to Washington nearly two centuries ago is being linked with Gloucester Point, Virginia by the largest double swing span bridge in the world. The bridge, named in honor of the late George P. Coleman, one time Virginia highway commissioner, will replace the ferry now serving traffic on U. S. Route 17. (Page 41)

•

A.G.C.'s construction units in the Army Affiliation Program are being called to the colors because of the high quality of their personnel and training. This is taken to mean that A.G.C. may sponsor and train additional units beyond the present quota of 85. Unit commanders are being urged to develop their outfits to B rating so that they may be included in the troop list.



4 Austin-Western CRUSHING PLANTS

for Arthur & Allen of Pueblo, Colorado

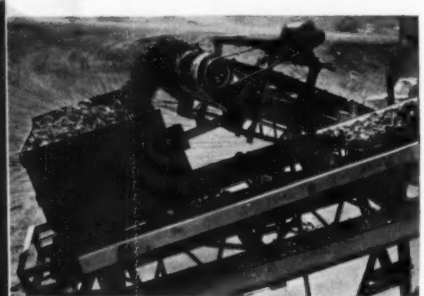
Crushing slag from the Colorado Fuel & Iron Company's Pueblo plant to produce ballast for the Santa Fe, Missouri Pacific and Rock Island Railroads.

The man at the feed conveyor in the foreground is salvaging iron from the slag.

This, the fourth Austin-Western Crushing and Screening Plant purchased by Arthur & Allen over a ten-year period, has an average run of 350 tons per hour and has reached a peak output of 420 tons per hour. The finished product is, in almost all cases, 1½" minus to ⅜" plus. The percentage of crush is approximately 60.

Whatever your production requirements, an Austin-Western Plant, designed and tailor-made to meet them, will do the same sort of outstanding job for you. Let's talk it over.

AUSTIN-WESTERN COMPANY, AURORA, ILLINOIS, U.S.A.



These conveyors are carrying the combined output of jaw and roll crushers.

The loading hopper is arranged to accommodate two trucks at one time.

BUILDERS OF ROAD MACHINERY

Austin Western

SINCE 1859

A Series of Graphs Outlining the Construction Trend

Compiled by The Associated General Contractors of America

TREND OF CONSTRUCTION COSTS

The average of construction costs in the principal construction centers of the United States for November stands at Index Number 371, according to the A.G.C. Index. The cost figure for November 1949 was 345. The 1913 average equals 100.

WAGE AND MATERIAL PRICE TRENDS

The average of wages in the principal construction centers of the United States stands at 494 for November. One year ago the average stood at 464. The average of prices paid by contractors for basic construction materials for November stands at Index Number 290. The average a year ago stood at 265. The 1913 average, again, equals 100.

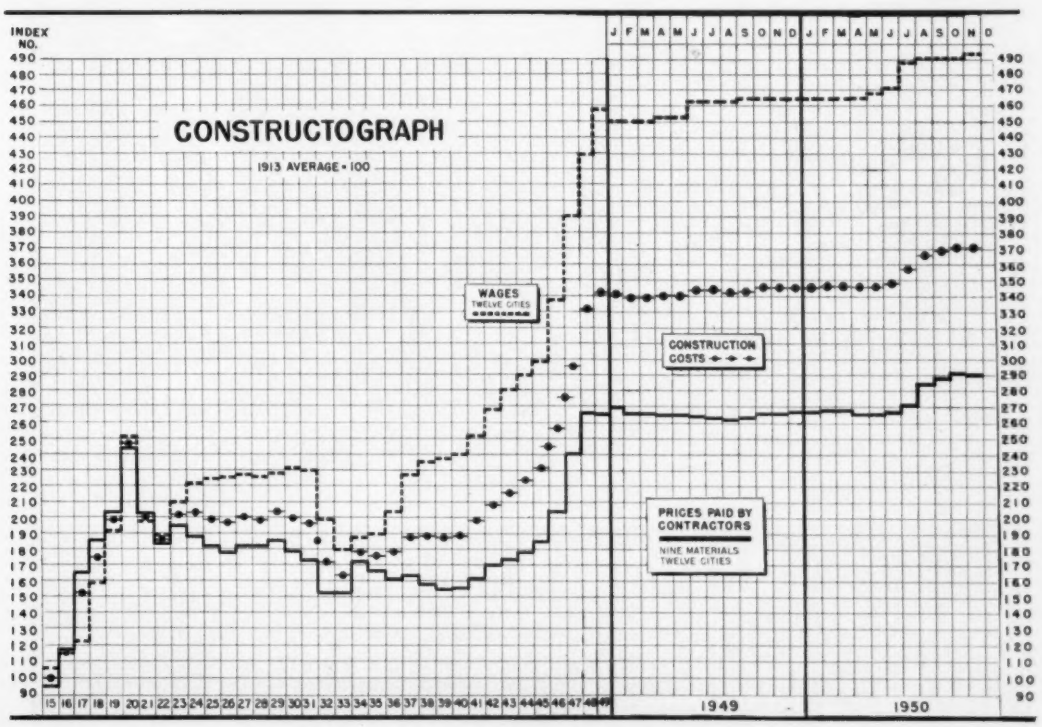
CONTRACT AWARDS IN 37 STATES

The volume of contracts awarded during October (Index Number 232, based on 1936-1938) is a decrease of 32 points from September, and a decrease of 1 point from October 1949.

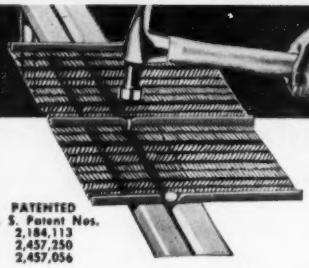
REVENUE FREIGHT LOADINGS

Revenue freight loaded during the first 46 weeks of 1950 totaled 34,568,955 cars. For the same period in 1949, loadings amounted to 32,125,333 cars. This represents an increase of .075 per cent.

● Wage, Material Price and Construction Cost Trends



THIS Is Why-



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U. S. Patent Nos.
2,184,113
2,457,250
2,457,056

ALSO AVAILABLE IS THE MACOMBER DOUBLE V JOIST WITH NAILABLE STEEL BOTTOM CHORD FOR ATTACHING ANY CEILING MATERIAL.

YOU'LL FIND THE MACOMBER TAG ON THE MAJORITY OF JOBS TODAY

NAILING top lath to Macomber V Bar Joists is faster than any other method.

Slab centering solidly anchored prevents deep pockets of wasted concrete between joists.

Design information for spans, 4 to 40 feet in Joist Catalog.

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NAILABLE STEEL V BAR JOISTS

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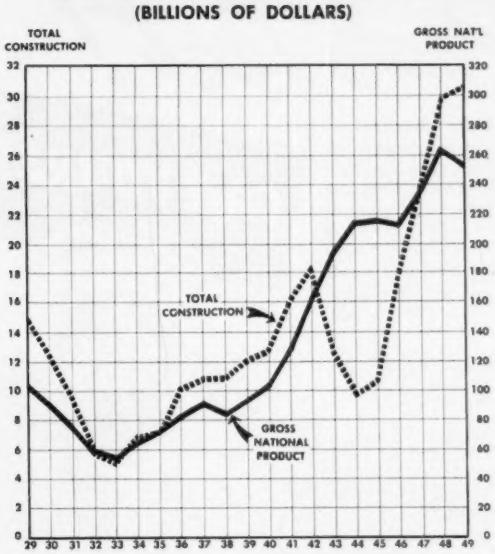
V BAR JOISTS • LONGSPANS • BOWSTRING TRUSSES • STEEL DECK

● TOTAL Construction compared with Gross National Product

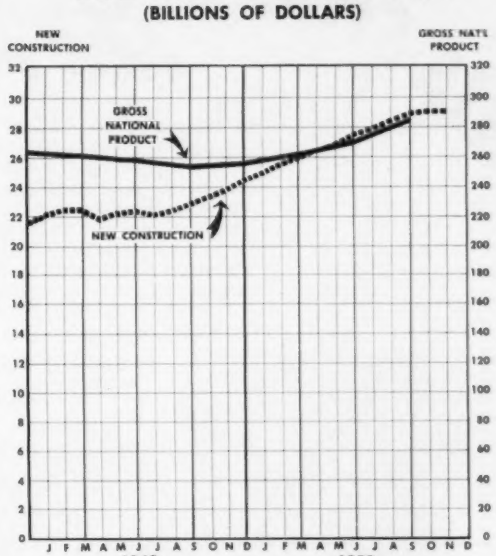
(BILLIONS OF DOLLARS)



DATA SUPPLIED BY DEPT. OF COMMERCE

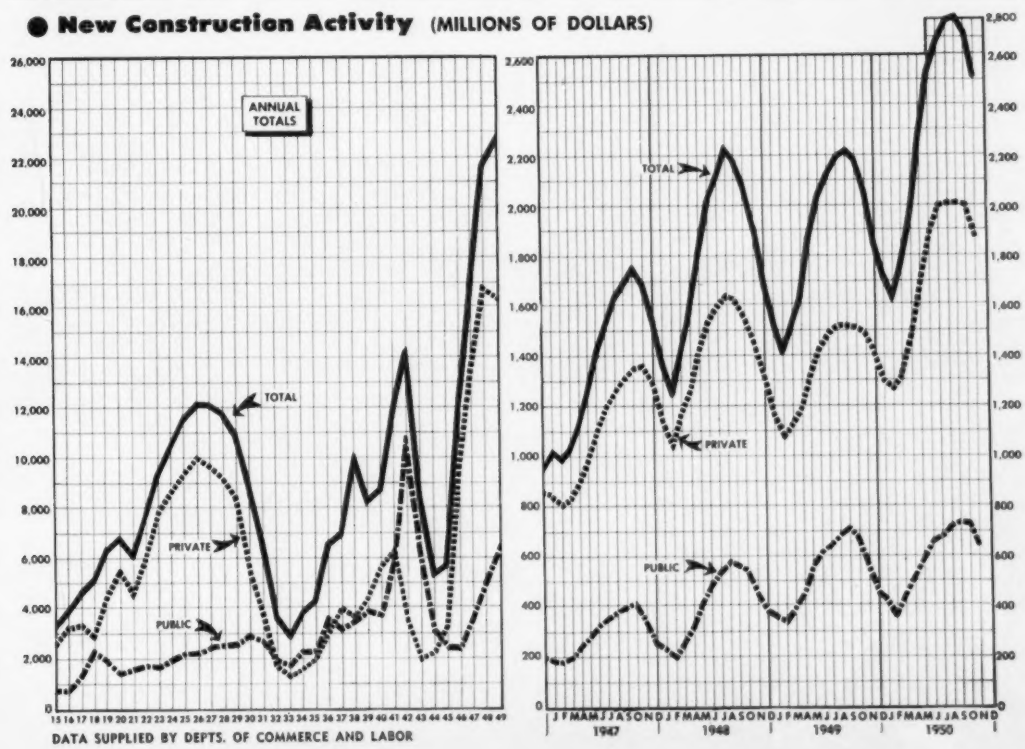
● NEW Construction compared with Gross National Product*

(BILLIONS OF DOLLARS)



** Seasonally adjusted at an annual rate*

● New Construction Activity (MILLIONS OF DOLLARS)



DATA SUPPLIED BY DEPTS. OF COMMERCE AND LABOR

THIS SHOVEL HAS STOOD the Rock Test!

Here's a job that would test the metal of any equipment. It's the kind of a place where smoothness of dipper control, ease of operation, accuracy in spotting and crawler maneuverability mean the difference between daily loss and irritation — or profit. Only a real Rock Shovel can handle a job like this! The machine is owned by Frazier-Davis Construction Co. of St. Louis, Mo., and it is working on part of the new water line for New York City — and by the way, Frazier-Davis have bought their 21st Northwest.

CAN YOURS?

INDEPENDENT CROWD plus AUTOMATIC CROWD
FOR GREATER DIGGING POWER
THE DUAL CROWD

NORTHWEST ENGINEERING CO.
1502-8 Field Bldg., 135 South LaSalle St.
Chicago 3, Illinois

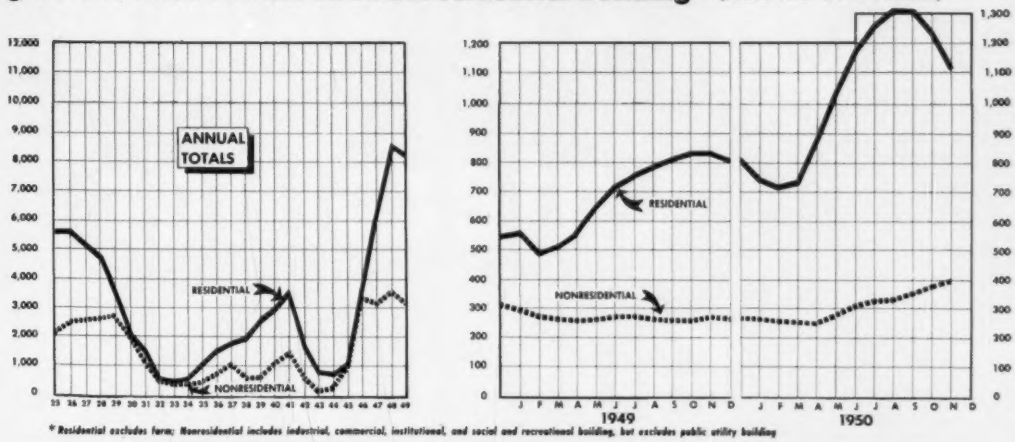
only the best for the heart of the job
MAKE YOUR KEY MACHINE A REAL ROCK SHOVEL
PROFIT

NORTHWEST

CRAWLER and TRUCK MOUNTED SHOVELS-CRANES-DRAGLINES-PULLSHOVELS

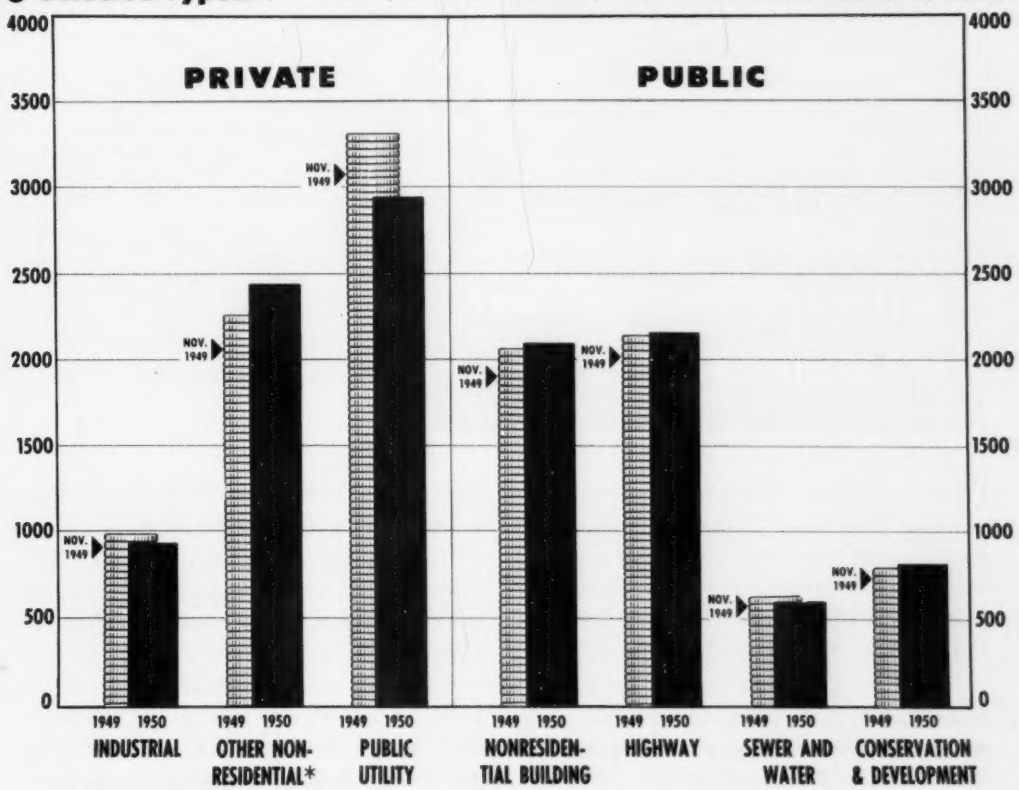
NEW CONSTRUCTION ACTIVITY

● Private Residential and Nonresidential Building* (MILLIONS OF DOLLARS)



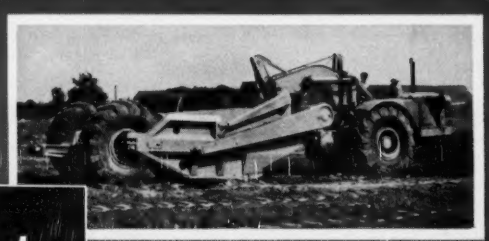
* Residential excludes farm; Nonresidential includes industrial, commercial, institutional, and social and recreational building, but excludes public utility building

● Selected Types: (CUMULATIVE, MILLIONS OF DOLLARS) 1949 and 1950 VOLUME THROUGH NOVEMBER



* Includes commercial, institutional, and social and recreational building.

2 giant new "Caterpillar" Earthmovers



. . . built to outspeed, outwork and outlast all comers!

With their high speeds and huge capacities, these two new "Caterpillar" Earthmovers have what it takes to push work through ahead of schedule. For national defense or private enterprise—on roads, dams, levees, airports or general construction—you can count on them for peak production.

Both these giants are powered by the new 225-HP., 6-cylinder "Cat" Diesel Engine. The 4-wheel DW20, with top speed of 26.6 m.p.h., is available with three matched units: the W20 Wagon, the No. 20 Scraper and the No. 20S 'Dozer. The 2-wheel DW21 has a top speed of 20 m.p.h. and trails the No. 21 Scraper. Features are described on the opposite page.

Here are typical reports on the DW20-W20 unit (25 cu. yds. heaped capacity): "You can run away from other rigs with it," says Operator Robert England. "The dump control is handy and easy to operate. It's got good brakes—you can stop it still, loaded. It's safe on turns and grades. It shifts easy and fast. The engine's got guts." Dragline Operator R. D. Johnson adds: "It's good and wide—you don't waste a bucket. It gets in and out faster than any I ever loaded."

THE DW20 TRACTOR AND W20 WAGON UNIT

This big-capacity unit offers:

17 cu. yds. capacity, struck; 25 cu. yds., heaped.

Travel speeds, through five gear ratios, from 2.88 to 26.6 m.p.h.

Wide-mouthed hopper to provide easy-to-hit target for shovel or dragline loading.

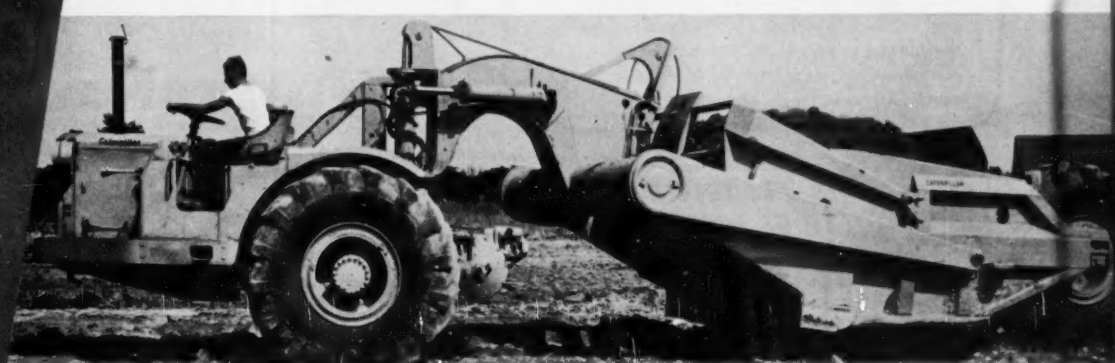
Controlled dumping — openings can be varied without mechanical adjustment — permitting either dumping or windrowing.

Accurate hydraulically controlled dumping with positive mechanical lock on dump doors.

The DW20 Tractor with No. 20 Scraper offers:

The same capacities, speeds and general specifications (except in type of gooseneck) as the No. 21 Scraper.

The DW20 Tractor is also available with the No. 20S Bulldozer.



THE DW21 TRACTOR AND NO. 21 SCRAPER UNIT

This big-capacity unit offers:

Full 90° turn each way—non-stop turn in 35 ft.

15 cu. yds. capacity, struck; 19½ cu. yds., heaped. With available 12" extensions: 18 cu. yds., struck; 22½ cu. yds., heaped.

Travel speeds, through five gear ratios, from 2.16 to 20 m.p.h.

Bowl and apron designed to promote "boiling" action of earth through center of load—for full-measure yardage, minimum loading time.

Large low-pressure tires for easy load flotation.

'Dozer-type ejection for positive "kicking out" of sticky material; dependable spring-action ejector return.

Open bowl design for visible loading under shovel or dragline.

Adjustable rear axle to permit level cuts and desired settings.

Double bottom of special alloy steel. Self-sharpening, reversible cutting edge.

High apron lift, low center of gravity.

Built to the exacting standards that characterize all "Caterpillar" equipment, these big yellow earthmovers are production boosters from the word "go!" What's more, your nearby "Caterpillar" dealer is on call for immediate service. For full information about these rigs, see him or write the factory.

•

CATERPILLAR TRACTOR CO., PEORIA, ILLINOIS

DW20 AND DW21 TRACTOR FEATURES

NEW ENGINE: The completely new 6-cylinder "Cat" Diesel Engine . . . 225 HP. at 1900 r.p.m. available at the flywheel . . . 275 HP. peak capacity at 2000 r.p.m. tested in accordance with A.S.M.E. Power Test Codes.

TRANSMISSION: Constant-mesh transmission and heavy-duty clutch. Special locking device prevents gears from becoming disengaged.

STEERING: Hydraulic booster steering follows the natural "feel-of-the-road" hand guidance. Heavy steel stops keep gooseneck of drawn equipment from jack-knifing.

BRAKES: Each large, heavy-duty brake is 22" in diameter, 7" wide. Compressed air energized brakes on both tractor and drawn member of unit. Handy control valves for applying both sets of brakes, and to either right or left driving wheel.

OPERATOR COMFORT: Airfoam rubber cushion on bucket-type seat mounted on coil spring with hydraulic snubber. All controls within easy reach. Excellent visibility.

CATERPILLAR

REG. U. S. PAT. OFF.

DIESEL ENGINES • TRACTORS
MOTOR GRADERS • EARTHMOVING EQUIPMENT

CONSTRUCTION MEN REPORT:

BELIEVE ME... ALL PORTABLE HEATERS ARE NOT ALIKE

Only "fresh air" portable heaters are absolutely safe. That's why I like Herman Nelson. It's *sealed-flame* principle positively prevents carbon monoxide poisoning.

YOU CAN'T SAVE WITH OLD-FASHIONED HEATING EQUIPMENT

When you're paying the cost of skilled workmen and high grade materials you can't afford the dangers of fire, smoke and soot damage. Manpower is damaged, too, when lethal fumes cause foul-air fatigue.

I'VE SOLVED THE PROBLEM OF WINTER SLOW-DOWNS

Nelson heaters keep my jobs going right through winter's coldest months. I use them for drying, thawing, ventilating and space heating. It's the most versatile portable heater on the market. Pays for itself on the first job!

FROM NOW ON IT'S NELSON PORTABLE HEATERS FOR ME

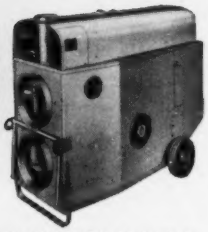
I learned the hard way. No more cut-rate heating on *my* jobs. It's too costly. I'll pay a little more to get Nelsons. They're best and cheapest in the long run.

You'll say Nelson Portable Heaters are the best buy, too. Just see what a *deal* your nearest Nelson dealer can offer you *now*, while stocks are still on hand. Write to Dept. C-12.

Today's Best Buy is Better Air!

AAF herman nelson moline illinois

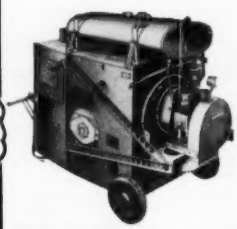
HERMAN NELSON DIVISION
AMERICAN AIR FILTER COMPANY, INC.
Moline, Illinois



HERMAN NELSON DE LUXE I
Capacity 280,000—450,000 BTU/hr
Completely automatic, including temperature control
Fresh air delivery 2,000—2,350 cfm
Electric motor powered

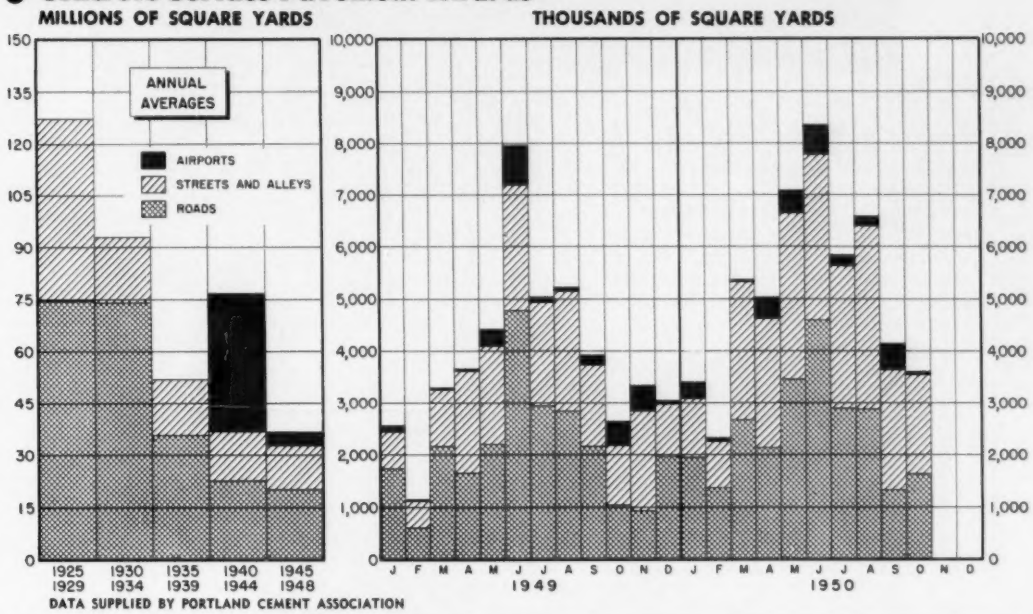
HERMAN NELSON DE LUXE II
Capacity 150,000—250,000 BTU/hr
Has automatic features like De Luxe I
Fresh air delivery 1090—1400 cfm
Duct—12" dia. x 12' long, collapsible canvas

HERMAN NELSON ECONOMY MODEL
Priced lower for smaller jobs
Capacity 125,000—190,000 BTU/hr
For 115/230 volt A.C.
Costs but 19c per hour to operate



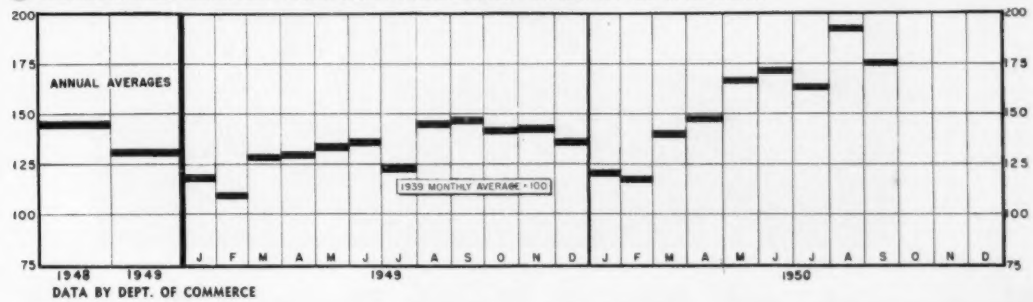
HERMAN NELSON STANDARD MODEL
Capacity 250,000—385,000 BTU/hr
Gasoline engine powered
Completely self-contained
For areas lacking electricity

● Concrete Surface Pavement Awards



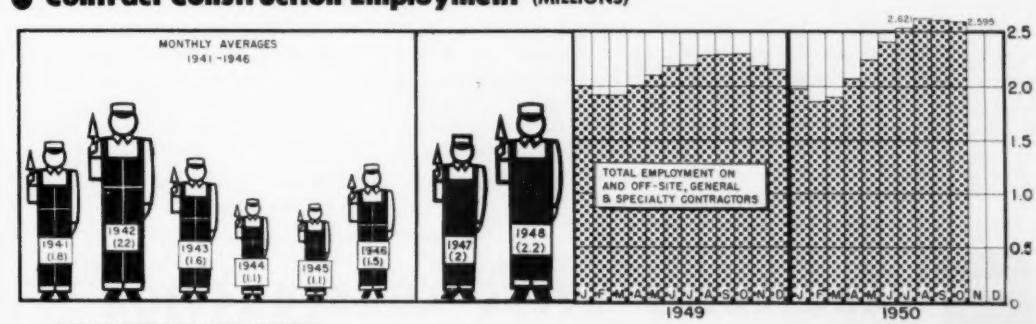
DATA SUPPLIED BY PORTLAND CEMENT ASSOCIATION

● Materials Index: COMPOSITE PRODUCTION INDEX OF 20 MATERIALS

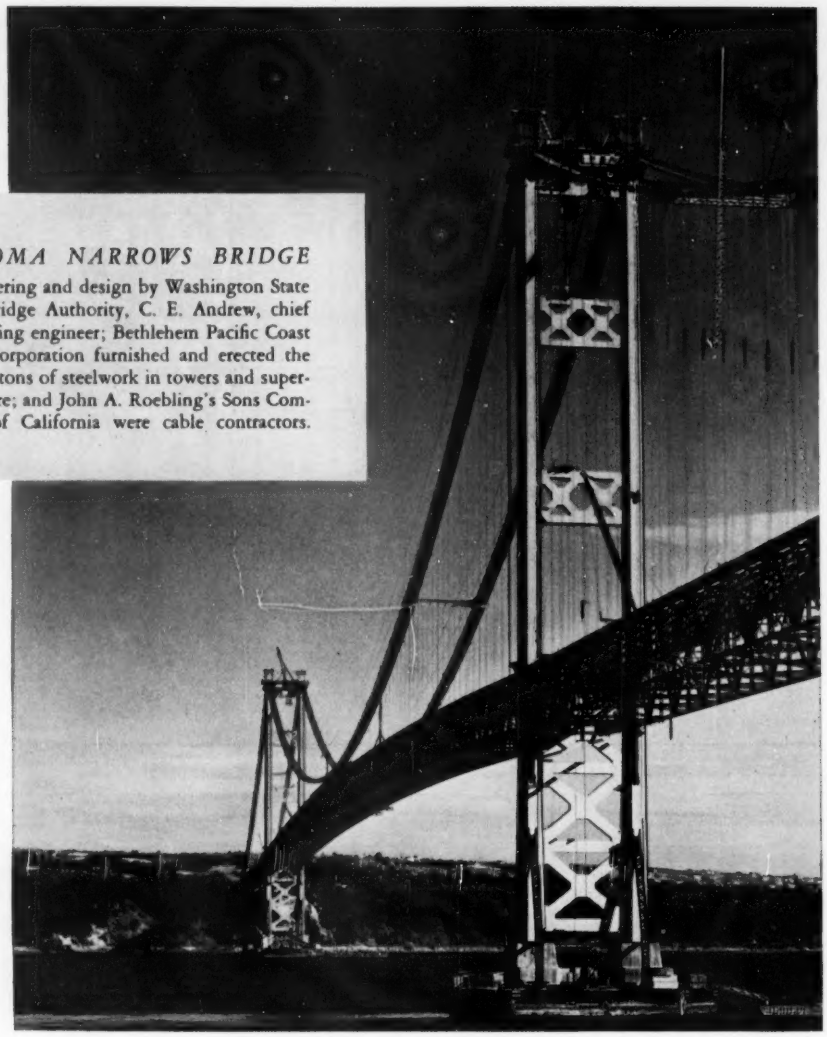


DATA BY DEPT. OF COMMERCE

● Contract Construction Employment (MILLIONS)



DATA BY BUREAU OF LABOR STATISTICS



TACOMA NARROWS BRIDGE

Engineering and design by Washington State Toll Bridge Authority, C. E. Andrew, chief consulting engineer; Bethlehem Pacific Coast Steel Corporation furnished and erected the 16,000 tons of steelwork in towers and superstructure; and John A. Roebling's Sons Company of California were cable contractors.

Network of Steel Over Puget Sound

This is the Tacoma Narrows Bridge, spanning Puget Sound and connecting the countryside of the Olympic Peninsula with the Tacoma-Seattle area. The third-longest suspension span in the country, it measures 2800 ft between the towers, and 5978 ft in over-all length. Its main towers rise 502 ft above water-level, and the bridge cables supporting the structure's 4-lane roadway are 20½ in. in diameter.

The Tacoma Narrows Bridge was engineered and designed by the Washington State Toll Bridge Authority. Fabrication and erection of the structure's 16,000 tons of steelwork were handled by Bethlehem Pacific Coast Steel Corporation, Bethlehem's Pacific Coast subsidiary.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation
Export Distributor: Bethlehem Steel Export Corporation

BETHLEHEM STEEL

FABRICATED STEEL CONSTRUCTION

For Moderate Income Families in Large Cities

(Formerly referred to as the "Cost of Living Index," compiled by the Bureau of Labor Statistics)

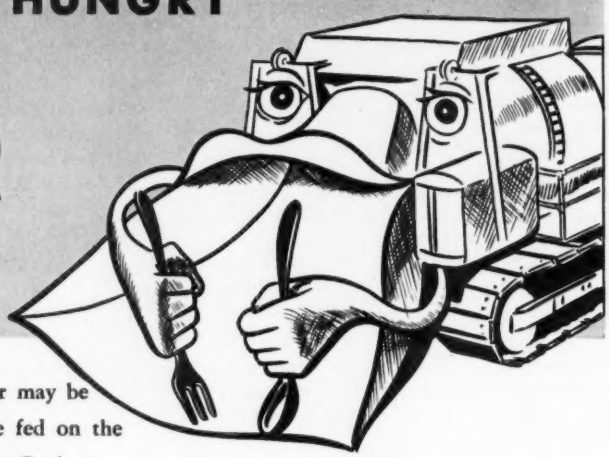
THIS table indicates the average changes in retail prices of selected goods, rents and services bought by the average family of moderate income from August 15, 1948 to October 15, 1950.

They are presented here for use by employers who may wish to take these cost of living data into consideration when contemplating adjustments of wages based on increased living costs.

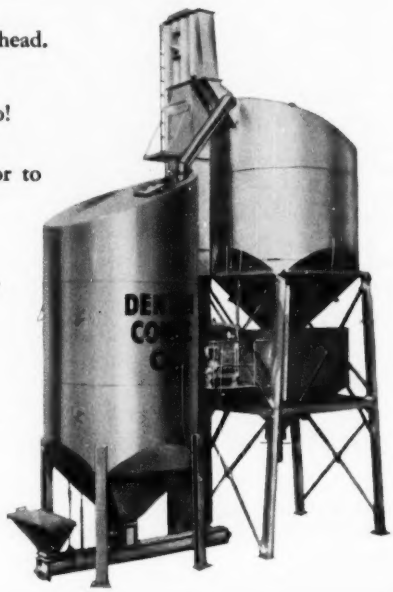
The Bureau of Labor Statistics surveys 10 key cities every month and 24 other large cities quarterly. Prices are obtained on food, fuel, apparel, house furnishings and miscellaneous goods and services. Rental information is obtained quarterly only for all cities. The computations are based on the indexes for the years 1935-39, which are taken as the average of 100 points.

	1948			1949			1950		
	AUG. 15	SEPT. 15	OCT. 15	AUG. 15	SEPT. 15	OCT. 15	AUG. 15	SEPT. 15	OCT. 15
Average	174.5	174.5	173.6	168.8	169.6	168.5	173.0	173.8	174.8
Birmingham, Ala.	179.3	178.6	176.9	171.1	171.8	170.3	177.7	179.7	179.1
Mobile, Ala.	.....	177.3	.....	.....	169.2	.....	.....	172.9	.....
Los Angeles, Calif.	171.0	171.0	171.8	166.8	167.1	166.5	169.1	169.5	171.3
San Francisco, Calif.	.....	177.1	.....	.....	173.0	.....	.....	176.0	.....
Denver, Colo.	.....	.....	171.0	.....	.....	164.6	.....	.....	172.8
Washington, D. C.	169.2	.....	.....	166.0	.....	.....	168.9	.....	.....
Jacksonville, Fla.	.....	179.1	.....	.....	176.5	.....	.....	182.4	.....
Atlanta, Ga.	176.2	.....	.....	172.3	.....	.....	176.6	.....	.....
Savannah, Ga.	.....	.....	178.4	.....	.....	173.4	.....	.....	181.6
Chicago, Ill.	178.8	179.4	178.1	174.4	175.8	174.4	180.2	179.8	180.4
Indianapolis, Ind.	.....	.....	178.0	.....	.....	172.1	.....	.....	179.8
New Orleans, La.	179.8	.....	.....	173.8	.....	.....	178.7	.....	.....
Portland, Maine	.....	170.7	.....	.....	164.9	.....	.....	167.9	.....
Baltimore, Md.	.....	179.2	.....	.....	174.0	.....	.....	178.1	.....
Boston, Mass.	168.7	169.0	167.8	163.8	165.4	164.1	168.4	168.2	169.4
Detroit, Mich.	176.1	175.4	174.6	169.9	170.4	168.7	175.1	175.4	177.7
Minneapolis, Minn.	.....	173.8	.....	.....	168.3	.....	.....	173.2	.....
Kansas City, Mo.	.....	.....	167.5	.....	.....	161.1	.....	.....	167.4
St. Louis, Mo.	.....	175.0	.....	.....	168.9	.....	.....	175.0	.....
Manchester, N. H.	.....	.....	176.5	.....	.....	169.3	.....	.....	176.2
Buffalo, N. Y.	.....	.....	172.7	.....	.....	167.4	.....	.....	173.0
New York, N. Y.	173.3	173.3	171.7	166.8	167.5	165.9	168.0	170.3	171.0
Cincinnati, Ohio	175.7	176.3	175.5	168.8	170.8	168.7	174.4	175.5	176.0
Cleveland, Ohio	179.3	.....	.....	171.6	.....	.....	176.0	.....	.....
Portland, Ore.	.....	.....	180.1	.....	.....	173.6	.....	.....	183.4
Philadelphia, Pa.	174.8	174.8	174.1	168.7	169.6	168.9	172.3	173.6	173.8
Pittsburgh, Pa.	178.3	178.3	177.1	172.4	172.3	171.1	176.4	177.7	179.2
Scranton, Pa.	174.7	.....	.....	169.5	.....	.....	171.8	.....	.....
Memphis, Tenn.	.....	177.1	.....	.....	172.7	.....	.....	177.2	.....
Houston, Texas	175.2	175.4	174.7	170.4	171.4	172.0	177.9	179.8	179.9
Norfolk, Va.	176.2	.....	.....	170.2	.....	.....	177.2	.....	.....
Richmond, Va.	.....	.....	170.0	.....	.....	164.9	.....	.....	171.6
Seattle, Wash.	176.2	.....	.....	170.8	.....	.....	175.2	.....	.....
Milwaukee, Wis.	174.5	.....	.....	166.9	.....	.....	175.7	.....	.....

A DUAL DRUM PAVER *NEVER* GOES HUNGRY WHERE BUTLER DOES THE BATCHING



Voracious though a dual drum paver may be (and high production requires it be fed on the dot) — when you're equipped with a Butler CR-37-58 Cement Batching Plant — you'll stay well ahead. As a matter of fact, add a 27E to the operation and that BUTLER PLANT will still keep up — and easily, too!



In the CR37-58 Plant, cement is fed by screw conveyor to the elevator, which loads either the discharge bin or the reserve silo. As the discharge bin empties, the new supply flows from reserve storage by screw conveyor and elevator up into the "active" bin which charges a dual batcher.

650 barrel capacity — and 2 batches every 90 seconds. That's faster than the trucks can take it away!

For super-production in building the highways of today — be sure you're BUTLER equipped.

A new Bulletin on BUTLER Roadbuilders Plants is yours for the asking. Write for Bulletin 205.

BUTLER BIN CO.

953 BLACKSTONE AVE.

WAUKESHA, WIS.

Sidelights for Contractors

By John C. Hayes, *Legal Adviser*

Taxes

Necessity Certificates. — The President has designated the Chairman of the National Security Resources Board as the certifying authority for issuance of necessity certificates relating to the amortization of emergency facilities. Regulations under Section 124A of the Internal Revenue Code have been prescribed by the Chairman.

1950 Tax Returns.—The income tax return Form 1040 to be filed for the calendar year 1950 differs from that for 1949 principally in that the new form includes schedules for the listing of income from dividends and interest, requiring the name and address of each payor as well as the amount. While Congress did not see fit to adopt the proposed withholding tax on dividends, the Treasury apparently feels that this detailed information will assist in preventing any taxpayers' laxity in reporting such income.

Payments to Widows.—The Bureau of Internal Revenue has published a ruling that payments made by an employer to the widow of a deceased officer or employee, in consideration of services rendered by the officer or employee, are includible in the gross income of the widow. Since this ruling reverses the Bureau's prior position in so far at least as some voluntary payments are concerned, the ruling will not be applied to payments received prior to January 1, 1951.

Depreciation.—Where buildings are erected by a lessee upon leased land and there is no evidence that a renewal option in the lease will not be exercised, the Tax Court ruled that the buildings are depreciable by the lessee over the shorter of the useful life of the buildings or the lease-plus-renewal period, but not over the period only of the original lease.

Procurement of Government Orders. —In a recent case the Tax Court sustained the deduction by a corporation of payments made to a Washington representative for assistance in getting substantial government orders, where it appeared the representative did not use undue influence and that the payments were reasonable for the services performed and were ordinary and necessary expenses of the corporation's business.

Lien for Income Tax. — A District Court has ruled that a Federal lien filed against property held by a husband and wife as tenants by the entirety, to collect a deficiency in income tax assessed against the husband who had filed a separate tax return, is invalid and may be canceled on suit by the husband and wife to quiet title to the property.

Business Expenses.—A corporation has been firmly rebuffed by the Tax Court in attempting to charge off as a business expense part of the costs of a wedding party paid by it, the bride being the daughter of the corporation's treasurer and majority stockholder and a number of the corporation's regular or potential customers being among the guests. In a stronger case for the taxpayer, though, the Court allowed a partnership to deduct amounts expended for flowers sent to employees or their wives or customers who were ill, and also the costs of minstrel show tickets distributed to customers.

Public Contracts

Lucas Act.—A "written request for relief" within the requirements of the War Contract Hardship Claims (Lucas) Act, the Supreme Court has decided, means written notice presented prior to August 14, 1945, to an agency which was authorized to grant relief under Section 201 of the First War Powers Act. While no particular form of notice is required, it must be sufficient to apprise the agency that it was being asked to grant extra-legal relief under the First War Powers Act for losses sustained in the performance of war contracts. The Court concluded that claims filed by a contractor in bankruptcy court, invoices for contract extras, and a petition for compensation for requisitioned property, were insufficient.

Cost-Plus Contracts.—The Office of Contract Settlement Appeal Board has upheld reimbursement to a cost-plus contractor for counsel fees in a National Labor Relations Board proceeding and for contributions to local Chambers of Commerce and the costs of a dinner given to local newspapermen aiding in obtaining workmen. The contract provided for recovery of costs of services necessary for the benefit of the work and for expenses of procuring labor.

Under a contract providing for the reimbursement of all costs, with certain specific exceptions, reasonably necessary for and incident to the performance of the contract, the Armed Services Board of Contract Appeals has allowed a cost-plus contractor to recover for the costs of use and occupancy insurance, except to the extent that it insured the contractor's profits.

And the Court of Claims has held that a cost-plus contractor with the U. S. Maritime Commission should be repaid for attorney's fees incurred in bringing a successful suit against the Government to recover contract costs, in accordance with applicable regulations prescribing how costs were to be determined under the contract.

Excessive Profits.—Under a Comptroller General's decision, a government contractor obligated by the terms of a contract to refund profits thereunder in excess of a fixed percentage of costs, may not offset against such profits a loss incurred under another government contract, although both contracts cover different parts of the same project and it may originally have been anticipated that only one contract would be executed.

How to keep a batch of concrete from becoming a batch of trouble

Even a minor breakdown can cost you hundreds of dollars when you're hauling ready-mix concrete.

But the owner of the truck above isn't worried. He has an International working for him. He knows he can depend on an International to stay on the job even in the toughest going.

Heavy-duty engineered stamina

Every International Truck is heavy-duty engineered to stand up under punishment.

This means that extra strength and toughness are built into every truck part. You get the maximum in trouble-free operation and the long life that have kept Internationals first in heavy-duty truck sales for 18 straight years.

. . . Plus a new world of comfort

No wonder the new Comfo-Vision Cab offers so much comfort—drivers themselves helped design it.

You get more head room, leg room, and foot room in the "roomiest cab on the road." You get full front visibility through a one-piece, curved Sweepsight windshield. You get an easily adjustable seat packed with comfort.

And just wait until you take the wheel. New Super-steering and Super-maneuverability give you more positive control from a more comfortable position and enable you to turn in shortest practical circles.

Get the full story NOW

The world's most complete line of trucks offers you exactly the right model for your job. Ask your nearest International Truck Dealer or Branch for complete information.

International Harvester Builds
McCormick Farm Equipment and Farmall Tractors
Motor Trucks . . . Industrial Power
Refrigerators and Freezers

Heavy-Duty Engineered

INTERNATIONAL TRUCKS

INTERNATIONAL HARVESTER COMPANY CHICAGO

Somber Days

WASHINGTON early this month felt the psychological impact of military reverses as well as diplomatic.

There was little doubt that all-out controls were much nearer than had been anticipated in November. Up until mid-November, Economic Stabilization Administrator Valentine, National Security Resources Board Chairman Symington and other officials had voiced the hope that taxation, credit measures, and voluntary action of management and labor would avoid the need for direct, all-out controls.

But after the sudden turning of the tide in Korea and failure of efforts to keep Communist China out of the battle, Mr. Symington remarked on November 30 that the nation was passing from a "light gray" to a "dark gray" stage of mobilization.

The strain to which the nation's economy will be subjected—with or without total war—can be understood from the tasks to which it is committed, as set forth in President Truman's statement of November 30 on developments in Korea:

"We shall meet the new situation in three ways. We shall continue to work in the United Nations for concerted action to halt this aggression in Korea. We shall intensify our efforts to help other free nations strengthen their defenses in order to meet the threat of aggression elsewhere. We shall rapidly increase our own military strength . . .

"This is a time for all our citizens to lay aside differences and unite in firmness and mutual determination to do what is best for our country and the cause of freedom throughout the world. This country is the keystone of the hopes of mankind for peace and justice. We must show that we are guided by a common purpose and a common faith."

On the following day, Mr. Truman transmitted to Congress his request for nearly $18 billion in additional funds for national defense, including more than $1 billion for expansion of the Atomic Energy Commission's program. There was little doubt that these funds would be granted, making a total of $41.8 billion thus far for the military forces during this fiscal year.

Thus the time table for strengthening United States defense has been shortened.

"Now, we face the necessity of having to raise our sights, both in terms of manpower and in terms of production," Mr. Truman told Congress. "These measures will put us in a position to move speedily into an increased state of mobilization if the situation grows worse . . . In any case, we must be prepared to endure a long period of tension."

The government's controls machinery continued to be assembled, but with greater rapidity. A director of price stabilization was appointed, personnel were selected to fill out a number of agencies concerned with mobilization. Machinery was completed for stimulating expansion of facilities to increase the production of critical materials, and agreements began to be consummated between the government and industrial firms to achieve that purpose.

Regulations continued to be ground out, piecemeal, restricting civilian uses on various metals. While no major controls were placed in effect, the most significant action on the controls front was the apparent spade work for a controlled materials plan.

Scores of rules, regulations, directives and announcements concerned with the various aspects of the mobilization program smacked once again of wartime Washington.

An Important Contribution

THE American highway picture has changed with the times. To-day we not only have a larger number of motor vehicles than ever before, but we use them more, give them heavier loads, travel at higher speeds. This increased traffic is having its effect. Roads that could handle normal traffic in stride in the early forties now demand greatly augmented maintenance if not complete rebuilding. Much is being said pro and con about the factors bringing this about.

In a determined effort to determine the causes that are responsible for road deterioration and place the blame where it belongs, the Highway Research Board, in cooperation with the Bureau of Public Roads and the highway departments of 11 states and the District of Columbia, is conducting a series of road tests covering a period of six months on a section of Route 301 south of LaPlata, Maryland.

On Pages 33, 34 and 35 of this issue, the tests and what they involve are described in detail. Naturally it will be months before the findings are tabulated and made public. But in the end they should be of incalculable value to both highway builders and users. The thoroughness and objectivity with which the Highway Research Board and its associated agencies are conducting these observations deserves the highest commendation of all individuals and organizations that have the welfare of our highways at heart.

From what has already been learned, it is safe to predict that the complete report of the findings will have a far-reaching effect upon road building and upon the limits imposed upon truck loadings in the future. The Highway Research Board is making a very practical and important contribution toward the protection of the nation's $30 billion investment in its highway system.

Industrial Building 2700 tons structural steel fabricated.

Buildings and Bridges grow

under the skilled direction of Allied Fabricating and Erecting Experts

● They start to "grow" in one or more of the 3 Allied Plants where speed and accuracy are the shop production words that Allied men know so well.

And on location, erecting crews take over with special timesaving techniques that get the structure up in a hurry and completed on schedule.

If you have plans and specifications on a building or a bridge, send them to us to be estimated. Even if you are only considering such projects and they are in the "talking stage," consult our technical experts. They can help you.

[illegible] Connecticut Street, Evansville, Ind., [illegible] structural steel fabricated and erected.

Affiliates:
- Clinton Bridge Corporation
- Stupp Structural Steel Corporation
- Midland Structural Steel Corporation

Mobilization Tempo Increasing; Allocations Program Indicated

- Nation Steps Up Defense in Critical Period
- Agencies Designated for Materials Needs

» WHILE NO further major controls were placed in effect during November, the outlook remained that the imposition of rigid controls on the economy would be a question of time —possibly shortened, in the opinion of many, by the recent reverses in Korea.

While Economic Stabilization Administrator Valentine and other government officials early in the month had continued to voice the hope that taxation, credit measures, and voluntary action would avoid the need for direct, all-out controls, National Security Resources Board Chairman Symington on November 30 said the nation is passing from a "light gray" to a "dark gray" stage of mobilization. On the following day, President Truman asked Congress for nearly $18 billion for defense.

There were these other developments during November:

- The government continued to organize its control agencies. Michael V. DiSalle, Toledo mayor, was appointed Director of Price Stabilization of the Economic Stabilization Agency. Appointments to the nine-man Wage Stabilization Board were completed (see story on page 26).
- National Production Authority's General Counsel Manly Fleischmann predicted that there would be a controlled materials plan for basic materials by mid-1951. In a move that may be the first step toward such a plan, the Commerce Department designated 19 federal agencies as claimant agencies to present requirements in materials and facilities for various programs.
- NPA began limiting the amount of critical materials which can be used for non-defense purposes.
- The Federal Reserve Board and Comptroller of the Currency sounded another warning that commercial bank loans are spiralling, and called on all banks to exercise voluntary credit control. (See story on Page 24.)

Groundwork for Allocations

Four primary "claimant" agencies were designated to handle requirements with respect to materials and facilities for various programs. They are: Department of the Interior for gas, petroleum, solid fuels and electric power; Department of Agriculture for food and the distribution of farm equipment; Interstate Commerce Commission for domestic transportation, storage and port facilities, but excluding air and maritime transportation; and the Department of Commerce for all materials and facilities not given to the other three agencies.

Subsequently, the Department of Commerce designated 19 agencies as claimants in its behalf for various programs. Construction was specifically listed for ten of these as follows:

Bureau of Public Roads, highways and all urban streets constructed with or without federal aid; Federal Security Agency, schools and hospitals; Veterans Administration, VA hospitals; Department of Defense, military construction; Department of the Army, Army civil functions; Housing and Home Finance Agency, housing construction, alteration and repair, and state and local community facilities; Defense Transport Administration, port facilities and domestic transportation; Department of the Interior, projects under its jurisdiction; General Services Administration, all federal construction not otherwise covered; and National Production Authority, needs of all industries and businesses, including construction not covered elsewhere.

Industry observers believed that if a controlled materials plan is adopted and these agencies have responsibility for allocations of materials for the programs under their jurisdiction, the construction industry would be able to complete essential projects more easily than was possible during World War II when there were practically no provisions for the allocation of materials directly to construction.

However, no machinery had been set up by early this month for such allocations.

Materials Use Curtailed

NPA acted to cut down the use of aluminum in 1951 by 35 per cent of the average used during the first six months of 1950. This probably means that contractors may find their aluminum supplies reduced next year.

Other orders were in the making for civilian uses of copper, zinc, nickel and other scarce metals. Allocations of steel have been made to manufacturers of freight cars and ore freighters, and allocations for pipelines and other types of industrial expansion were under study.

In the priorities system, authority to give defense order or "DO" ratings had been delegated to the Department of Defense, Atomic Energy Commission, Coast Guard, and National Advisory Committee for Aeronautics.

Controls Checklist

A monthly checklist of governmental laws or regulations issued in the mobilization program.

NPA Order M-6 assists steel distributors in obtaining supplies to carry out normal functions by requiring steel producers to provide regular monthly allotments to distributors based on average purchases. It also permits distributors to extend DO rated orders. Effective November 8.

NPA Order M-7 provides for the equitable distribution of the aluminum which remains after rated orders have been filled. New and small businesses will not be overlooked. Effective November 13.

NPA Order M-8 limits inventories and the use of tin and tin-bearing materials. Effective November 13.

NPA Order M-4 amendment stipulates that the construction ban applies to structures as well as buildings. A golf course, swimming pool, athletic field and race track are examples of structures. Effective November 15.

NPA Order M-9 provides rated orders for zinc and applies to all zinc producers and fabricators, and dealers in zinc and zinc products. Effective November 16.

Regulation X amendment exempts real estate construction credit extended prior to May 1, 1951 on new construction begun before October 12.

Voluntary Credit Control Urged on Banks

• Federal Reserve Board, Comptroller Putting on Pressure

» IN THE absence of further indirect controls on construction by means of credit restrictions, the government last month sent urgent pleas to national banks and members of the Federal Reserve System, asking them to apply voluntary restraints in the credit field.

No public intimation had been made by early this month as to whether new restrictions on credit in the commercial construction field would be imposed in the near future. (That such restrictions may be required was hinted at a press conference when Regulation X on housing was issued.)

Chairman McCabe of the Federal Reserve Board of Governors again wrote to member banks, reiterating the policy announced in August by the FRB, the Comptroller of the Currency, the Federal Deposit Insurance Corporation, the Home Loan Bank Board, the National Association of Supervisors of State Banks.

After referring to the recently instituted consumer and residential construction credit curbs, Mr. McCabe wrote:

"Commercial banks can also do their part in bringing about restraint of credit by advising borrowers to avoid overstocking of inventories and to postpone unnecessary business expansion and by discouraging various types of loans that do not make a definite contribution to the defense effort."

He said the $5 billion rise of all commercial bank loans from mid-year to mid-November was a much greater expansion than during any corresponding period on record.

On November 30, the Comptroller of the Currency announced the results of the October 4th call on all the 4,975 active national banks and sent a letter to their boards of directors pointing out inflation factors.

He reported commercial and industrial loans of $12 billion were 16 per cent greater than three months previously; loans on real estate of $6.7 billion were up five per cent; and consumer loans at $5.6 billion were up 10 per cent.

He wrote all national banks, in part:

"We wish to stress the importance of these facts and strongly urge that you carefully analyze your credit policies and loan portfolios and exercise great care in extending credit in order to screen out all demands which would contribute toward an inflationary spiral."

1950 New Construction May Hit $28 Billion

• Discreet Silence Maintained by Government on 1951 Outlook

» CONSTRUCTION activity is continuing to roar along with the national economy, with the total volume of new work put in place this year expected to approach the $28 billion mark, another all-time record.

New construction during the first 11 months of the year, according to figures of the Departments of Commerce and Labor, reached $25.4 billion compared to $20.7 for the same period of 1949.

The national summary of business conditions, as set forth in a nutshell by the Federal Reserve Board at the end of November, was:

"Industrial output and employment increased somewhat further in October. Over-all construction activity was maintained at record levels. Value of department store sales declined somewhat in October, but increased seasonally in mid-November. Commercial bank loans continued to expand substantially in October and first half of November. Average prices in wholesale and retail markets reached new peaks."

During the third quarter, the volume of business activity, measured by statistics on the gross national product, was at an annual rate of $284 billion, described as a "rare" increase of $14 billion from the previous quarter.

November construction volume was more than $2½ billion, only eight per cent below October and 23 per cent above last November, paced by nonresidential building which partially offset a more-than-seasonal decline in homebuilding.

Commercial and industrial contraseasonal gains were from five to 10 per cent last month.

The governmental agencies which compile these statistics did not come out with their usual estimate of the outlook for the next year. They indicated they will continue to maintain a discreet silence in view of national and international conditions.

It was considered by the industry that a prediction of changes in types of construction next year is about as far as could be seen in the crystal ball, with the addition that volume of new construction probably would be closer to $20 billion than the high total of this year.

Germany Hires Frank Rooney

Frank J. Rooney

A special assignment in Germany has been given to Frank J. Rooney, president of the South Florida Chapter of The Associated General Contractors of America.

Mr. Rooney's job is finding the quickest, most efficient method of housing 8½ million refugees now living in Germany. He is a member of an eight-man team of American specialists which will aid the German government in solving housing, rehabilitation and employment problems created by the influx of foreign-born German nationals.

These men have been hired by the Republic of Germany for a period of 90 days. They departed for Germany on September 21 and expect to return to this country late in December.

Defense Plant Construction May Be Big Volume Factor

- Government's Aid Program Starts Slowly
- Jones & Laughlin Plans $144 Million Expansion

» THE first agreements between the government and industry for the expansion of defense plant facilities were consummated last month, beginning what may prove to be a big factor in defense construction for some time to come.

Under the Defense Production and Internal Revenue Acts of 1950, the government is encouraging the expansion of production of critical materials by:

(1) Offering direct loans, if necessary, under the Defense Production Act, which authorizes $600 million for such purposes.

(2) Guaranteeing loans by private institutions.

(3) Approving accelerated tax amortization on expanded facilities under the Internal Revenue Act of 1950.

(4) Agreeing to purchase part of the expanded output of critical materials.

Tax Amortization

Eight certificates of necessity—the first under the program recently announced—were signed and issued by the National Security Resources Board to Jones and Laughlin Steel Corporation for accelerated tax amortization on facilities expanded for defense work.

These certificates, filed October 30, involve new facilities estimated to cost about $144,000,000 to increase steel ingot capacity by 1.2 million tons, coke and related by-products by 266,400 tons, and electrolytic tin plate by 168,000 tons.

NSRB Chairman Stuart Symington announced, "Many other companies, including steel companies, have made application to take advantage of the tax provision and will likewise receive decisions within a short time."

Mr. Symington must approve any application for taking advantage of the tax amortization provision. The tax law permits a manufacturer to deduct the cost of such approved plant expansion at the rate of 20 per cent per year.

Applications for accelerated tax amortization are filed with the newly-created Business Expansion Office of NSRB, which is headed by Byron D. Woodside, formerly with the Securities Exchange Commission.

Arrangements for handling applications for direct loans for expansion of capacity, development of technological processes, or production of essential materials were announced late last month by Chairman Symington.

These loans will be granted only when the applicant is unable to obtain them from private financial sources with or without government guarantee, or from other public sources on reasonable terms.

In Washington, four certifying agencies have been designated to receive and investigate the merit of such applications: Departments of Commerce, Agriculture, and Interior, and the Defense Transport Administration. Field offices of these agencies will accept them outside Washington and transmit them to the agencies. Under some circumstances, other agencies with which an applicant may be dealing, such as the armed forces, will forward such applications to the proper certifying agency.

When approval has been given, the Reconstruction Finance Corporation will act as agent for making the loan. Approval hinges on such factors as feasibility of the project, competence of the management, absence of more economical means for obtaining the scarce material or services, availability of the necessary factors of production, effect on small business and competitive enterprise, and the need to eliminate bottlenecks in production and distribution of materials or services needed for defense.

Loan Guarantees

In the field of defense production, the government is particularly stressing aluminum. The NSRB, General Services Administration, Munitions Board, and Defense Minerals Administration, Department of the Interior are coordinating efforts to stimulate construction of plants for greatly increased production of the metal.

Last month GSA entered into agreements with three firms for either reactivating idle plants or expanding their facilities.

The Aluminum Company of America will activate three plants, normal operation of which was not economically feasible.

Kaiser Aluminum and Chemical Corporation is launching an expansion program for new plants in the Southwest, financed privately, with assistance promised, if needed, in the form of loan guarantees and accelerated plant amortization. The expansion program will increase Kaiser production by 66 per cent.

Another agreement was reached with the Reynolds Metal Company.

Presumably, the agreements guaranteed purchase of at least part of the expanded output for stockpiling and other defense needs.

NPA May Be Busy

Indications that the National Production Authority anticipates a heavy hand in the business of plant expansion were seen in the appointment of Frank R. Creedon to organize a facilities clearance staff within NPA for the processing of certificates of necessity, "and for carrying out any responsibilities which may fall upon NPA in connection with direct loans for industrial expansion."

Mr. Creedon, former Federal Housing Expediter, has an extensive background in construction. He was in charge of construction of the atomic bomb plants at Oak Ridge, Tennessee, and Hanford, Washington.

Latin American Industry

Increased military and economic commitments necessitated by the international situation should not be permitted to jeopardize continued U.S. participation in Latin American industrialization programs, Otto F. Sieder, executive vice president of the H. K. Ferguson Company, A.G.C., said recently after conferring with business and government officials in South America.

Mr. Sieder, whose firm is building a new alkali industry representing an investment of $15 million in Colombia, said South American industrialists still favor the United States as their prime source of technical know-how and equipment, despite attempts by European engineers and manufacturers to regain the market by underselling American producers.

Construction Men Included on Wage Board

• John T. Dunlop and Harry C. Bates Appointed

» TWO MEN familiar to the construction industry were included on the nine-man Wage Stabilization Board of the Economic Stabilization Agency which was rounded out last month.

John Dunlop

Appointed as a public member was John T. Dunlop, the impartial chairman of the National Joint Board for the Settlement of Jurisdictional Disputes in the Construction Industry.

It is understood that Mr. Dunlop, who has been chairman of the joint board since its inception, will continue in that capacity. He has had a wide experience in labor relations activities which has included acting as consultant to the National Labor Relations Board, the Council of Economic Advisers, and to John R. Steelman, assistant to President Truman. An associate professor at Harvard University, he formerly was a public member of the Wage Adjustment Board for the construction industry; a consultant to the Office of Economic Stabilization, the Office of War Mobilization and Reconversion, and the steel panel, National War Labor Board. He also had been chairman of the Boston Regional War Labor Board.

Harry Bates

Harry C. Bates, president of the Bricklayers, Masons and Plasterers International Union, A. F. of L., was appointed as a labor member of the board. He also served on the old WAB during World War II.

Although not yet determined, the appointment of these men indicates the likelihood, in the event wage controls are imposed, of establishment of a board similar to the WAB of the last war to handle wage and dispute problems of the construction industry.

During World War II the construction unions made an agreement with government agencies supervising construction programs, stabilizing overtime and providing that there would be no strikes against defense and war projects if certain wage and working conditions prevailed. Development of a no-strike agreement in the current mobilization program would necessitate another board for the settlement of disputes, as was done by the WAB.

An important function of The Associated General Contractors of America during the last war was assistance in the operation of that board.

NLRB Decides Cases Under Taft-Hartley

• Recent Cases Reported by A.G.C. Labor Relations Staff

» APPLYING its recently announced policy on when it will exercise jurisdiction under the Taft-Hartley Act, (November CONSTRUCTOR, Page 49) the National Labor Relations Board recently ruled:

1. That it would assert jurisdiction over a contracting company which supplied an interstate *public utility* with over $50,000 in services consisting of electrical construction and maintenance work during the preceeding year. (*Scott Construction Co., Inc. and Local 39, IBEW, Dayton, Ohio,* Case No. 9-RC-838);

2. That it would assert jurisdiction over a general contracting firm which, though not directly engaged in interstate commerce, had rendered over $50,000 in construction services to firms which were clearly engaged in interstate commerce (*White Construction and Engineering Company, Inc. and Local No. 433 of International Brotherhood of Boilermakers, Iron Ship Builders and Helpers of America, AFL,* Case No. 10-RC-923);

3. That it would assert jurisdiction in a case involving a highway contractor whose operations include the construction, maintenance and repair of roads and of an airport landing strip for which it received well in excess of $50,000, the minimum requirement. (*In the Matter of Depew Paving Co., Inc.,* Case No. 3-CA-217);

4. That it would not assert jurisdiction over a general contractor engaged in local construction even though his annual purchases, all within the state, totaled $238,000, a small part of which was for goods originating outside the state. Although this contractor's annual sales exceeded $400,000, all were made to owners within the State of New York and none were made to owners who themselves were engaged in interstate commerce. (*In the Matter of Merrill Construction Co., Inc.,* Case No. 3-CA-191);

5. That it would not assert jurisdiction over the operations of a building material association whose members' sales were all local, that is, to customers within the state. During the year 1949, the association's members purchased about $1,816,000 worth of material and supplies of which $124,860 represents purchases shipped directly to the members from outside the state. According to the Board's new "yardsticks," the direct purchases of material from outside of the state would have to amount to at least $500,000 and local purchases of goods which originated from outside of the state would have to amount to $1,000,000 or more. (*Snohomish County Building Material Association and International Association of Machinists, District Lodge No. 69,* Case No. 19-RC-602.)

Price Index Revised

Revisions in the Consumers' Price Index appeared in the November release of the index for October.

Unexpected changes in prices since June, plus the need of government and industry for contemporary data has brought about a change in the plans of the Bureau of Labor Statistics. The Bureau had intended to publish a thoroughly revised index in 1952 with no interim alterations.

To the 200 commodities which make up the "family market basket" and are the broad basis upon which results are computed, will be added frozen and baby foods, television sets, permanent wave lotions and others. Also, rent increases in certain areas will be included in the revisions.

Revised and unrevised versions will be published together to give continuity to escalator contracts based on the previous figures. Revisions of the Wholesale Price Index and the Daily Index are to be finished this year.

Alaska's Construction Boom Attracts Many Contractors

- Keen Competition for Jobs in Territory
- Contracts Let for Housing and Railroads
- Highway and Airport Work Also Heavy

» THE TERRITORY of Alaska is a lively place for the construction industry these days. General contractors are busily engaged in carrying out a large program including highways, airports, building and railroad jobs.

The Alaska Development Board several months ago reported that nearly $300 million was available this calendar year for construction. Developments since this announcement may raise the construction ante to $400 million. Much of this work is now under way.

A slice of some $140 million is earmarked for military agencies, including the Army, Navy and Air Force. Federal civilian agencies will expend nearly $80 million, which includes $27 million for the Alaska Road Commission, $22 million for the Alaska Railroad, and $11 million for civilian airport construction. More than $41 million for housing construction with FHA-insured loans is listed, and appreciable amounts are also available for public works construction by the territorial agencies, municipalities, school districts and institutions.

Competition for Jobs Keen

Competition for contracts is keen. Awarding agencies are receiving most reasonable bids, considering the great distances involved in delivery of supplies, the extremely short construction season and the necessity for importing almost all labor from the States. Fifteen bids received last summer for a large radar-screen installation project indicates the contractors' interest in Alaskan jobs. Usually contracting firms do not bother with Alaskan bids unless they are serious in seeking the job. For example, a letting for grading and surfacing 52 miles of the Alaska Highway is cited. The low bid was $1,884,391, the second bid was $1,896,354 and the fifth low was $2,044,437. They want work in Alaska.

Early in 1950 a survey revealed that 14 A.G.C. contractors alone had imported over $10 million worth of equipment. These firms have indicated that they will bring in an additional $15 million if the annual yearly volume holds.

Alaska has an area one-fifth of the United States, but the highway system of the territory totals only a little over 3,000 miles. It leaves many gaps to be filled before a connected network is provided. Much improvement is necessary on the Alaska Railroad. Air transportation, while offering good service to most communities, requires additional air fields and other aviation facilities.

The Alaska Highway from the Canadian border to Fairbanks, a distance of 303 miles, is being paved and improved. Some 160 miles has already received a bituminous surfacing, and the balance will be paved soon.

Contracts for improving and paving 85 miles of the 268-mile Richardson Highway next year have been let, and contracts for paving the balance will be awarded in 1951 and 1952. This route connects the Alaska Highway with the port of Valdez.

The 189-mile Glenn Highway has 111 miles already paved, and contracts awarded for the rest of it.

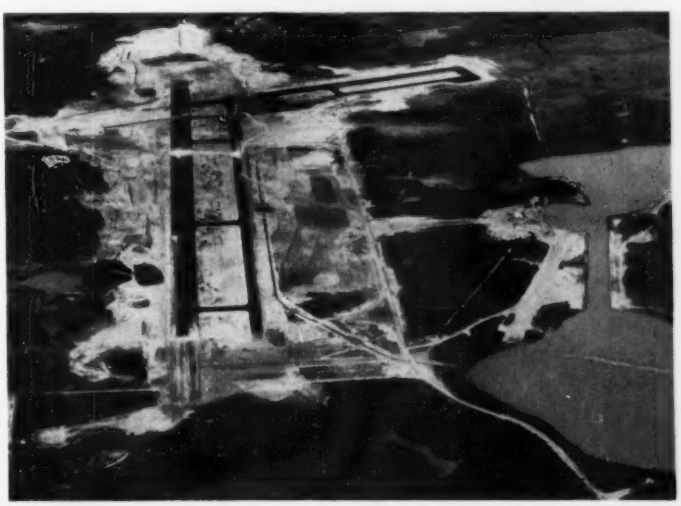
Extensive reconstruction preparatory to paving the 136-mile Tok Highway is in progress. This highway joins Anchorage to the Alaska Highway and thence to the United States. It is also the winter route between Fairbanks and Anchorage.

South from Anchorage 73 miles of new highway are being built and contracts are soon to be awarded for 58 additional miles to provide a connection with the port of Seward. In the supplemental appropriations bill passed by Congress last Fall, $7½ million was provided for this work which involves relocation of many miles of the Alaska Railroad.

Most of the 40-mile section of the Haines Highway connecting the coast city of Haines with the Canadian border has been paved. This route is through Canada to Fairbanks. The Canadian section is still unpaved.

A paved highway is being constructed from Juneau, the capital, to the Juneau airport, a distance of nine miles. Congress has also provided $3½ million for each of two years for improvement of the roads in the extensive Tongass National Forest in Southeastern Alaska.

Major portions of the funds for highway construction are made available to the Alaska Road Commission



International Airport at Anchorage. Note channel dredged between lagoons at the right. This taxiway makes base available for seaplanes.

in Juneau. Here the Bureau of Public Roads has a divisional office. The ARC has working agreements with the BPR and through the cooperation of these two agencies excellent progress is being made to provide a sizable mileage of improved highway in a short time.

Airport Construction

Alaska's big air transportation program embraces construction of two large international airports (1) at Anchorage to free Elmendorf airbase of civilian air traffic, and (2) at Fairbanks to eliminate commercial and private aircraft at the Ladd airbase. Small airports were built during 1950 at Kotzebu, Fort Yukon, Ninilichik, Dillingham, Palmer, and Seldovia.

In addition to this air program, smaller projects to cost approximately $1½ million, will be built in 1951. These will be located at White Mountain, Quartz Creek, Taylor, Ruby, Juneau, Haines, Eagle, Kaltag, Bethel and Seward.

At the Anchorage airport, excavation has approached four million cubic yards. This included the removal of all unstable materials under the runways which required in some cases digging down through 18 feet of muck. Two runways, one 200 by 8,400 feet and the other 150 by 5,000 feet, are being built. All taxiways and runways are designed for heavy wheel loads.

In building the runways, the subgrade is surfaced with 15 inches of selected material, then with 15 inches of crusher-run stone of two-inch maximum size, followed by three inches of hot-mix asphaltic concrete. In the taxiways, the thickness of the selected material and of the crushed stone are each increased by three inches.

A steel-frame hangar, 196 by 326 feet, was recently started at the Anchorage airport. Here also, as has been necessary at other large Alaskan projects, an extensive camp for workmen and adequate repair shops were built. Other installations included a large crushing plant and a hot-mix plant with a 100-tons-per-hour capacity. The field will be done in 1951.

Construction contracts already awarded on the Anchorage project now amount to $7½ million.

The Fairbanks airfield will have one 150 by 6,000-foot runway and one 75 by 6,000-foot taxiway. Over three million cubic yards of earth work was required. Materials used included 150,000 cubic yards of crushed stone and 40,000 tons of asphaltic concrete.

Congress last Summer appropriated $30 million for construction on the Alaska Railroad. However, $17 million was to meet obligations already incurred, with the balance to be used for additional contracts.

The 400-bed hospital for the Alaskan Native Service at Anchorage. Eight stories in height, of reinforced concrete design, it will cost $4½ million.

The Alaska Railroad runs a distance of 470 miles between Seward and Fairbanks with a 14-mile spur to Whittier, an ocean port. Most of the improvement work will be done on that part of the line between Whittier and Anchorage and on to Fairbanks. When the highway that parallels the railroad between Portage and Seward is completed, the railroad will be abandoned to make Whittier, rather than Seward, the chief transfer point from ocean-going vessels to the railroad.

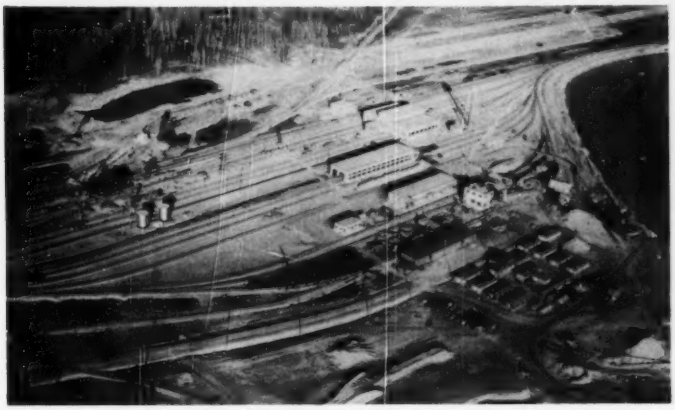
Much work has already been done on the $7½ million terminal yard at Fairbanks. This project, which covers 100 acres, enlargement of the railroad's general offices and other buildings, a 148- by 154-foot engine repair shop, a car shop, a 50,000-gallon water tank, a warehouse, a 900-kva diesel power plant, 19 miles of track, diesel oil storage facilities and other structures. The repair shops will eliminate "deadheading" rolling stock 356 miles to Anchorage for repairs.

Every Alaskan city of any size has at least one large housing project under construction.

Work at Juneau includes a 52- by 136-foot, 12-story building which will cost $1½ million, and will be the highest building to date in Alaska. Construction is featured by use of slip forms that are jacked up as concrete placement continues. A three-foot height of all exterior walls and most of the interior walls are built during each eight-hour shift.

At Anchorage, one multi-story apartment project was recently completed and five other major projects are under way. One of the latter is a reinforced concrete structure 13 stories

Most Alaskan projects require the contractor to build camps like this for the construction crews. A fine view of the mountains is thrown in.



Alaska Railroad Terminal at Fairbanks. The yard covers 100 acres and has general offices, repair shops and full terminal rail facilities.

Thriving Alaska Chapter

With the influx of general contractors into the territory, the benefits of A.G.C. affiliation were at once apparent, and a chapter was chartered on December 1, 1948. It now has 36 members. The officers are R. H. Stock, Anchorage, president; D. L. Chaney, Seattle, vice president; and Bill Lofholm, Anchorage, secretary-treasurer. L. A. Moore is manager, and Victor Guns, assistant manager. The chapter headquarters are at Anchorage. From this base, Mr. Moore and Mr. Guns do considerable traveling throughout the territory.

high. It was only recently started.

Housing activity at Fairbanks includes an eight-story steel-frame building which will cost $2½ million and will require 800 tons of structural steel. Another large housing project is under way at the edge of the municipal airport at Fairbanks.

Other large Alaskan building projects include a 400-bed hospital at Anchorage for the Alaska Native Service of the Interior Department. This $4½ million structure is of reinforced-concrete design and will have a maximum height of eight stories.

Additional building projects under way include a new library at Juneau; a large hospital addition at Fairbanks; and a Y.M.C.A. building, a theater, a National Guard Armory, and a labor union's headquarters, all at Anchorage.

Eklutna Project

Congress this year authorized the Department of the Interior to build and operate the Eklutna hydroelectric power project 30 miles north of Anchorage. A low dam at Lake Eklutna, a diversion tunnel and penstock, a power plant with an installed capacity of 30,000 kw., and transmission lines are included in the work to be done.

Public Law 628 authorizes but does not appropriate $20,365,400 for this development which, when completed, will be the largest hydroelectric installation in Alaska. It will supply power to the Matanuska Valley, three rural cooperatives, the Alaska Railroad, Elmendorf Airport, Fort Richardson, the city of Anchorage and the town of Palmer. Funds for beginning the work are expected to be available at an early date.

The Corps of Engineers recently released the first detailed listing of military construction projects to be undertaken in the territory for the Army and the Air Force during the current fiscal year.

The work, totalling over $106 million, includes work on Eielson Air Force Base ($26 million), construction at Fort Richardson, Anchorage ($50 million), projects at Ladd Air Force Base ($15 million), Whittier ($9 million), and a communications station at Kenai ($7 million).

Extensive military construction is already under way in Alaska. These include projects to provide the radar screen for the territory.

Facilities were completed in Seward and Anchorage last Summer to permit the use of bulk cement in Alaska. In the past only cement in bags was available and considerable extra cost, waste and delays were encountered in its use.

At Seward the Superior Portland Cement Company constructed facilities to permit delivery of cement in 16,000-barrel barges from which it can be transferred pneumatically direct to cars on the railroad siding, or to bulk storage accommodating 38,000 barrels.

LST's Haul Cement

Permanente Cement Company built the cement distribution plant at Anchorage. It has bulk storage capacity of 30,000 barrels in two steel storage tanks. The cement arrives there in 15,000-barrel converted LST's built during World War II, and is distributed to Anchorage by trucks, or shipped by rail to the bulk plant at Fairbanks.

Jaeger spreader box mounted on a Caterpillar D-8 tractor, and using Ford F-8 trucks is used on highways and airports of the territory to spread sub-base material in four-inch lifts. Outfit arrived via Alaskan Highway.

Reclamation Program Totals $355 Million

- Schedule Reduced $29 Million Because of Defense Cutbacks

» THE BUREAU of Reclamation's construction program for the current fiscal year, realigned to meet the Nation's emergency defense and economic needs and totaling approximately 355 million dollars, was announced on November 15. The figure represents the total construction cost program, including $238,373,000 in new funds, plus funds previously appropriated. They exclude Bureau funds transferred to other agencies participating in the Missouri River Basin program.

The work schedule reflects a reduction of about 29 million dollars from last year's 387 million dollar total. This is due to national defense reserves and other cutbacks authorized by Congress. It fully meets the present specifications for water resources construction during this emergency period, but additional changes can be made. Approximately $63,000,000 in appropriated funds are now withheld in accordance with the economy rider to the Appropriation Act for 1951 and by action of the Bureau of the Budget.

"The 1951 program encompasses such essential tasks as must be done by the bureau to preserve the water resource benefits built up through prior years and which constitute essential direct contributions to our defense programs," the announcement declares.

On August 15, Secretary Chapman directed the bureau to continue work on all main power construction, and that which will develop municipal and industrial water supplies, and on such irrigation projects as are scheduled to furnish water within two years. General investigations and operation and maintenance programs are also included in the category of essential work.

The program for the year, which may be altered further as a direct or indirect result of defense measures, is aimed at functional completion of 8 new storage dams, 5 power plants, 2 canal-system units, a pumping plant, and more than two thousand miles of transmission lines. The schedules envision 663,000 more kilowatts of generating capacity and water available for 546,400 additional acres. This will increase the total acreage for which reclamation project water is available to 6,146,000 acres, and increase the total installed reclamation project capacity to 3,831,500 kilowatts.

Corps of Engineers Announces 210 Projects

- Major Share of Contract Work Will Be at Airbases in Alaska

» MILITARY construction projects totalling $209 million for 210 projects in 24 states, District of Columbia, Alaska, Bermuda, Hawaii and Okinawa represent the initial portion of the 1951 fiscal year funds appropriated by Congress for this purpose, including supplemental appropriations approved on September 27, 1950.

The first detailed listing of military construction to be undertaken by the Corps of Engineers for the Army and Air Force during the current year was made last month by Major General Lewis A. Pick, Chief of Engineers. Two-thirds of this initial phase, or some $135 million is for construction outside the continental United States, principally in Alaska. Both inside and outside the continental limits, the work comprises a diversified list of operational facilities and housing.

The policy of awarding lump sum contracts to the lowest responsible bidder, following public advertising, generally will be followed in the projects covered by the initial announcement, General Pick announced.

States receiving the major portion of the $74 million allotted for continental United States are Alabama, California, Florida, Maine, Maryland, Montana, New York, Utah and Washington.

Alaska's projects, divided among Eielson Air Force Base, Fort Richardson, Ladd Air Force Base, Kenai and Whittier, total 74. Bermuda gets $1½ million for family quarters at Kindley Air Force Base and Okinawa gets approximately $25 million for warehousing, oil storage and communication facilities. Family quarters at Tripler General Hospital, Hawaii, will cost $320,000.

Pick H-Bomb Plant Site

Acquisition of around 250,000 acres in South Carolina for location of the Atomic Energy Commission's new production plants is under way, and a peak construction force of approximately 8,000 men is anticipated during the first six months of construction which will be started early next year.

Presumably the new facilities will be used in an attempt to produce the hydrogen bomb. The $260,000,000 supplemental appropriation of last September for this development was requested in connection with such research.

E. I. du Pont de Nemours Company of Wilmington, Delaware, will design, build and operate the plants, which will be located in Aiken and Barnwell Counties near the Savannah River.

The site was chosen by the Commission after a four-month study of more than 100 sites by the du Pont concern, AEC, and other federal agencies. A site review committee of five members of leading engineering firms appointed by AEC reviewed and endorsed du Pont's findings. They are: L. J. Sverdrup, Sverdrup and Parcel, Inc., St. Louis, Missouri; H. L. Bunce, Jr., Stone and Webster Engineering Corporation, A.G.C., Boston; W. S. Finlay, J. G. White Engineering Corporation, New York City; James F. Towers, Ford, Bacon and Davis Construction Corporation, A.G.C., New York City; and A. T. Waidelich, The Austin Company, Cleveland, Ohio.

Panama Housing Program

The housing program for the Panama Canal has started with the announcement that bids will be received for the construction of 91 masonry type buildings at Silver City, Canal Zone.

Bidders are expected to furnish all plants, tools, equipment, materials, labor and services for performing all site preparation work and constructing utilities, pavements, and buildings.

The full program will take about seven years to complete with an initial expenditure of approximately $70 million. Projects include the construction of about 30 apartments of the masonry type on the Pacific side, 25 apartments of composite masonry and frame construction on the Atlantic side along with grading and utilities at a townsite.

A. G. C. Seeks Tax Provisions Less Onerous to Contractors

- Presents Statement on Excess Profits Legislation
- Points Out Inequities for Contracting Industry
- Four Types of Exemptions Recommended

» DURING the exceptionally short hearings held last month by the House Ways and Means Committee in considering the enactment of the so-called excess profits tax legislation, H. E. Foreman, managing director of The Associated General Contractors of America, filed a statement on November 18 on behalf of the association's members.

In his discussion of such taxation preceding the recommendations of the association (printed below), Mr. Foreman explained the operations of a general contractor which causes any type of excess profits tax to impose a definite hardship on the contractor.

Not Like Other Industries

The general contracting industry, he pointed out, is not comparable to other industries, having no line of manufactured items ready to sell, no purchased inventory to fall back upon, no close estimate of labor costs, nor well-housed and completely maintained machinery and equipment.

"In many respects the general contractor's operation is more nearly comparable to a personal service group. The very nature of the contractor's operations requires relatively small invested capital, most of which is represented by equipment, which, at best, has a short life. . . . It may be said that the major factors in determining the general contractor's profit are the contractor's own experience, ingenuity, and skill of operation."

Contractor Penalized

"Experience has shown that this type of tax encourages waste, inefficiency, and extravagance," the statement said. "It serves to destroy the incentive for efficient operation.

"The contractor is penalized by this type of tax, due, in part, to the length of time it requires to complete a structure, thus creating an overlapping of the operation in different tax years. The excess profits tax cannot be made to apply equitably to all business corporations, and, for this reason, a tax based on earnings during a particular base period on an invested capital insures, proportionately, a greater rate of tax on general contractors."

The remainder of the statement follows:

Recommendations

Members of the general contracting branch of the construction industry are not opposed to the taxation of profits derived from wartime orders, directly or indirectly. Our purpose is to bring to the attention of the Committee the difficulties that an excess profits tax creates and to make recommendations that will partially alleviate this hardship.

Excess profits taxes were enacted during World War I and World War II. This tax has now come to have a definite meaning. Theoretically, it is supposed to merely take away the profit that is in "excess" of what a corporation should normally earn if an emergency did not exist. To arrive at what are normal profits for each corporation, a formula is used that is based on a corporation's average earnings for a past period or on the invested capital of the corporation. Recognizing that many inequities and hardships would be caused by the use of either of these methods, relief provisions were incorporated in both the World War I and the World War II tax acts.

Recommended Exemptions

In order to obtain some degree of equality in the application of an excess profits tax as applied to the general contractor, the following should be exempted:

1. *Profits from all contracts awarded as a result of competitive bidding.*

As has already been stated, the normal practice of a general contractor is to sell a completed structure or improvement at a fixed price before it comes into existence. Generally, a purchaser requests several general contractors to bid in competition for the work. Ordinarily, the lowest responsible bidder receives the award. During the contractor's operation, any increase in the cost of materials or labor, as well as other factors, are the contractor's responsibility and generally serve to decrease the contractor's final profit. It is rare that a contractor's estimate at the time the contract is awarded is the same as when the work is completed.

2. *Profits on all operations entered into at a fixed price prior to June 24, 1950, the date of the Korean invasion.*

The general contractor, because of the custom of doing the work by fixed-price contract, has no means of increasing the amount called for in the contract. It was not possible to foresee the Korean conflict, with its immediate increase in all types of costs going to complete the project called for by the contract. In no way can the work involved in these contracts be considered defense work or have any direct relation to the Korean conflict.

3. *Profits on long-term contracts entered into prior to June 24, 1950, that are to be completed subsequent to that date.*

Many general contractors hold contracts predating the Korean conflict. Many of these contracts date back several years and many will require several years to complete. Certainly any profits realized from these long-term contracts cannot possibly be considered "war profits." Many of these contractors have already been penalized by the increase in the normal rates of tax now in effect. This applies particularly to the contractors that report their income from long-term contracts on a completed contract basis, that is, at the time the work is completed. The contractors already face substantial reduction in anticipated profits from these long-term contracts because of increased costs that have already taken effect. Many general contractors operating under long-term contracts only begin to realize their profits when the project has been under way for quite a long period of time.

4. *Profits on all negotiated fixed-price contracts that are subject to renegotiation.*

The purpose of renegotiation legislation is to recapture any abnormal or excessive profits, which are attributable to the emergency. During the last war general contractors engaged in

war work were required to refund a very large part of their profits and were further subject to an excess profits tax. Inasmuch as renegotiation was not based on income after taxes, many contractors found themselves in financial difficulties by reason of additional taxes levied when their tax returns were examined by representatives of the Bureau of Internal Revenue.

Suggested Tax Pattern

An excess profits tax that follows the pattern of the last excess profits tax, to at least soften its impact on the general contractor, should be as follows:

Earnings method.—A base period embracing the years 1946 through 1949 should be used in determining normal earnings. A general contractor should be permitted to use the average of any two years out of this period, rather than of all the years embraced in the period. The normal earnings should be based on the full earnings, rather than a percentage of earnings. A general contractor has no assurance of a continuity of earnings. One year may produce net profits and another year no profit. He may have work one year and not any the next. A general contractor fully appreciates the truth of the expression, "It's chicken today and feathers tomorrow," that is so often heard in connection with the contractor's operations. In many instances a contractor may have a fixed-price contract for the building of a structure and this work may continue for the greater part of one year and a half of the following year, and during the remainder of the latter year he is forced to remain idle because of lack of work. It is because of the uncertainties that confront the general contractor that the average of any two years in the base period is recommended.

Invested Capital Method.—A general contractor in figuring the tax base should be allowed the appraised value of his equipment and the total amount of his borrowed capital, as well as any accumulated earnings. Most general contractors who are forced to use the invested capital method because of negligible earnings during the base period are penalized because the contractor does not have or need to have a large investment in a plant, such as would be the case with most manufacturing concerns. For the most part, a contractor's invested capital consists largely of equipment used in his operations. The equipment, at most, has a short span of life and hence there is a constant shrinking of the invested capital attributable to this equipment.

Specific Exemption.—A general contractor should be allowed a minimum of $50,000 as a specific exemption. The normal earnings, therefore, would be the average of the base period earnings plus the amount of the specific exemption. This pertains in like manner when the invested capital method is used. The last excess profits tax provided for the allowance of an annual specific exemption, thus permitting a portion of the contractor's profit to be exempt from this tax. This allowance for the last year the excess profits tax was in effect was $10,000. Based on the experience of the general contractor during the years the last excess profits tax was in effect, it was found that a specific exemption of $50,000 would be necessary to compensate, at least in part, for the hardship that the excess profits tax law caused the general contractor.

Relief Provisions.—Any excess profits tax laws should contain clear and specific relief provisions that would, at least to some extent, alleviate hardships. These relief provisions should be set forth in the Act and not left to administrative interpretations and rulings. In the last excess profits tax, relief provisions were incorporated that were expected to relieve hardship cases arising because of the recognition that the excess profits tax rate would not fall equitably on all corporations. The building industry was specifically mentioned in the report of the Senate Finance Committee accompanying the World War II excess profits tax as possibly qualifying for relief due to a business cycle which might vary from the general business cycle. Actually, very little relief was forthcoming. A large number of these claims for relief are still pending. These relief provisions did not solve the problem of equitably applying the excess profits tax to all taxpayers. The cost of administration merely added to the burden of the taxpayer, without accomplishing the desired result. Many of these pending relief claims bear yearly interest at 6%, thus further burdening the taxpayer. The general contractors believe that the relief provisions of an excess profits tax law should be clearly spelled out by Congress and not left to administrative interpretations. No useful purpose would be accomplished by merely re-enacting the same or similar provisions that were contained in the last excess profits tax law.

The purpose of incorporating relief provisions in an excess profits tax law is to insure that the tax rate will fall equitably on all taxpayers. To partially accomplish this, relief provisions should be incorporated insuring the right of a taxpayer to use the same base as other comparable competitors in the same industry.

Tax Limitation.—Under Section 710 (a) (1) (B) of the World War II excess profits tax the combined income and excess profits tax could not exceed 80% of the corporate surtax net income (computed without allowing credit for income subject to excess profits tax). With the benefit of the postwar refund credit of nearly 10%, the rate was limited to approximately 70%. A limitation as to the percentage of surtax net income that could be extracted from a taxpayer should also be incorporated in the proposed excess profits tax law now under consideration. The interests of small business should be safeguarded in an excess profits tax law to the same extent that they are now protected in the computation of the normal income tax. To this end, a taxpayer should be permitted to pay as a maximum tax a combined income and excess profits tax of 38% on all earnings up to $100,000, a combined income and excess profits tax of 45% on all earnings over $100,000 but not over $250,000, and a combined income and excess profits tax of 50% on all earnings over $250,000. In this way it is possible to afford small business the necessary protection, as well as to insure that the tax burden will fall equitably on the various types of taxpayers.

Re-enactment.—There should also be re-enacted in any excess profits tax law Section 721 and Section 736 (b) of the 1942 excess profits tax law, providing relief for companies reporting on a completed contract basis, so that the earnings associated with periods prior to the effective date of the new excess profits tax law will not be penalized simply because of the method of accounting. Section 721 protects companies with income in the form of dividends from foreign subsidiaries and is particularly important to construction companies operating on lump-sum contracts.

The other sections pertaining to growth and to corporations commencing business during the base period and immediately thereafter should likewise be retained in the proposed act.

Maryland's Highway Test Means Much to U. S. Trucking Industry

- Weights Compare A.A.S.H.O. and State Limits
- Effects of Heavy Loading Already Seen
- Careful Record Kept of Road's Behavior

By Norman W. Gregg, Constructor Staff

» DAY IN and day out, around the clock, eight trucks rumble over a 1.1 mile stretch of Highway 301 south of LaPlata, Maryland. Here, under exacting scrutiny and careful recording, the most thorough and comprehensive test of road durability ever held is in progress. Sponsors of "Road Test One—MD," as it is officially known, are the Highway Research Board, the Bureau of Public Roads, and the highway departments of 11 states and the District of Columbia.

Each lane of the road under test is built of concrete with a seven-to-nine-inch parabolic slab. Since its construction in 1941, it has had normal use up to the beginning of the test on June 23. A typical American road was chosen as the guinea pig for this truck traffic experiment.

The stretch of pavement is divided into four sections, each 12 feet wide and half a mile long. The extra one-tenth of a mile is used for the field office of the engineering staff in charge, for slabs undergoing special test operations, and the turnarounds at each end of the section. There are 250 slabs, 12 by 40 feet, and each has a number and an individual record card. Entries covering several observations are made daily.

The Ford and Reo trucks on Section One have a single rear axle load of 18,000 pounds. The single rear axle loading of the GMC and Autocar on Section Two is 22,400 pounds. Section Three, with a White and an International, has loadings of 32,000 pounds on tandem rear axles. Section Four, using a Mack and a GMC, employs tandem rear axle loadings of 44,800 pounds.

The lighter weight on the single and tandem axles is that recommended by the American Association of State Highway Officials. The heavier is the weight permitted by the state of Maryland and five other states.

The trucks travel at an average speed of 35 to 40 miles per hour at mid-course with a slowing down for the turnarounds. Halfway in each section an "electric eye" operates a counter which registers the number of truck operations or trips. It is estimated that the traffic under these conditions is some 20 times greater than that which this highway would undergo normally, but comparable to the traffic some highways experience.

So that the truck will not pass over the same part of the slab all the time, a device mounted before the driver shows by means of colored lights the path to be taken on that particular trip. In this way, the distance from the edge of the pavement is varied.

When the tests began, some cracks were noted in the pavement and these were outlined in black. From the start of the project until August 7, new cracks were painted yellow. From August 8 to September 20, cracks occurring in that period were outlined in white. From September 21 for a period of one and a half months, fresh cracks were indicated by red paint.

Recording device for measuring deflections and stress under moving loads. The device has been brought out of doors for photographing.

View of Section One and Two looking south from Highway Research office. Section One at right carries the A.A.S.H.O. specified load. Section Two has the Maryland load limit. In the middle distance will be noted the electric counters which record the truck operations over each section.

Starting in November, broken yellow lines will mark the newer cracks.

During September, the Air Force delivered Sonne strip airphotos which are continuous film records from one end of the job to the other. The shots in color were made at 100 and 400 feet. The painted cracks are clearly visible in the shots taken at the lower elevation. The Air Force will be asked to make another flight when the test traffic is discontinued. Before this is done the cracks will be repainted in their proper date-code colors.

Truck traffic on Section Four was halted on October 13 because the surface had been cracking at the rate of 100 feet per day during the three previous days. Only one uncracked expansion joint and five contraction joints were left in the section. It was believed that additional stress and deflection measurements of these joints were more important than continuing the truck traffic. Whether it will be resumed has not yet been determined by the Advisory Committee. The whole

A.A.S.H.O.-weighted truck passing over joint on Section Three. Arrow indicates wiring to a device which records effect of truck's passage on the joint.

test is scheduled to end December 23.

The accompanying tables show the summaries of cracking for the months of September and October.

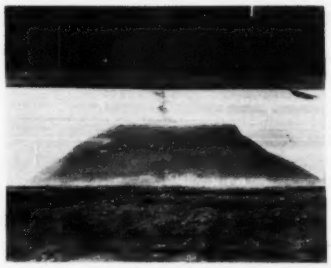
Studies include cracking, "pumping," settlement of slabs, warping and load stresses, deflections and settlement at corners of broken slabs. Daily rainfall is recorded and considered in relationship to "pumping." Conditions studied during the test cover a range from summer heat to winter cold, as well as day and night traffic.

During the period from August 24 to September 14, readings at 3:00-4:00 a.m. and 3:00-4:00 p.m. were made with Ames dials to measure the deflections at various joints caused by trucks moving at creep speed. From September 5 to September 14, readings were made at four- to six-hour intervals throughout the entire 24-hour

Hand shows depth of settlement of a joint on Section Two. Stick shows original level.

cycle. The joints of each type selected for study within each of the four sections were those at which no or varying degrees of pumping had occurred.

On September 29, 27 SR-4 strain gauges were installed to measure warping stresses on Slab 129. Readings



Bituminous patch on a badly settled joint on Section Two. This section carries the 22,400 pound per single axle load.

began on September 30 and will be continued until the desired data are obtained.

To learn the action of heat and cold in a slab not submitted to traffic,

September Record

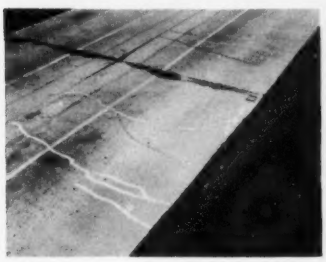
Section Number	All Cracks		Slabs Cracked		Number of Truck Applications
	Number	Length in Feet	Number	% of Slabs in Sec.	
1	6	34	4	8.0	34,678
2	44	321	11	22.0	35,917
3	18	150	14	19.7	25,253
4	341	1878	67	94.4	23,804

October Record

Section Number	Period included	All cracks		Slabs cracked		Number of truck applications
		Number	Length in feet	Number	% of slabs in section	
1	Oct. 1–31	8	53	5	10.0	43,869
2	Oct. 1–31	42	184	14	28.0	37,805
3	Oct. 1–31	56	348	28	39.5	30,289
4	Oct. 1–13	92	435	46	64.8	10,594
3	June 23–Oct. 9	55	307	29	40.8	92,000
4	June 23–Oct. 13	564	3303	68	94.4	92,166

thermocouples are installed at the base, one-third, two-thirds and surface of the slab, which record the temperature variations in depth.

"At the outset, we asked engineers, highway builders and highway users just what information they thought we should obtain in these tests, and have taken steps to include their suggestions in our investigation," stated A. Teragin, project engineer. "We believe that when our tests are completed and analyzed, the large amount of technical information secured here will be valuable to all connected with the construction of highways."



Close up view of a crack failure on Section Two.

Since consistency in weight of trucks is important, the fleet was reweighed on September 29. Six were within 200 pounds of the specified load, one within 300 pounds and one within 400 pounds. No adjustment of load was deemed necessary since a tank-full of gasoline in each truck will cause the slight variation found.

Early in November, engineers and contractors from 38 states and 16 foreign nations had signed the guest book of the Highway Research board as visitors at the test site.

Heavy Equipment To Fly

Bulldozers, tractors, scrapers, graders, power shovels and other items of earth-moving and construction equipment are being tested by the Army's Engineering Research Laboratories at Fort Belvoir, Virginia, for transportation by air. A weight limit of 16,000 pounds has been set. Some standard commercial quality-production units can meet this requirement. Others must be specifically designed to conform to weight and bulk specifications. The objective is to fly the entire line.

Soil Stabilization Machinery Tested

• Army, Navy Engineers Demonstrate Machines at Belvoir

» ARMY AND NAVY civil engineers continue their efforts to develop a rapid soil stabilization process for use in military operations. The Army is working with clay soil, the Navy with sand. They use similar machines.

At the Fort Belvoir testing grounds in Virginia a demonstration of both methods was held last month for the benefit of military officials in the Washington D. C. area. (An earlier Navy demonstration was reported in the July CONSTRUCTOR, page 54.)

Both methods involve mixing chemicals with topsoil in a continuous operation through the use of conventional road paving machinery adapted to this particular purpose. Chemicals used are water soluble resins which can be polymerized under normal conditions. For stabilization of sand, the Navy uses analine and furfural. The Army mixes clay soils with calcium acrylate. Catalysts are added to govern requirements for hardening periods. Wheel loads up to 50,000 pounds can be maintained after 18 hours.

Some engineers hope that this process can be used for the construction of secondary roads, asserting that materials are less expensive, a smaller crew is used and the time to do the job is less.

Dr. Hans F. Winterkorn of Princeton University took up the Navy's stabilization problem three years ago at the request of the Bureau of Yards and Docks. The Army's process has been developed under an Army Engineer Research and Development Laboratories contract with the Massachusetts Institute of Technology.

Top: Knife edges scoop soil into barrel mixer above which is chemical tank. Not shown is a bulldozer pulling the road paver. Strip can be seen in rear of paver. Bottom: Spreader-compactor is shown. Strength of chemicals requires operator to wear a gas mask. Machine moves 12 feet per minute.

"MORE POWER, WEIGHT *and* SPEED

makes these TD-24's do more work than any other tractor on this job," says contractor R. K. Nickols

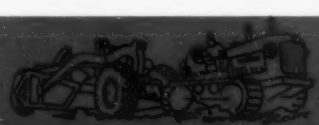
Taking the twists out of Carmel Valley road involves moving 340,000 cubic yards of rugged California terrain. Both Mehren Construction Co. and Los Gattos Construction Co. chose International TD-24's for bulldozing and push-loading here.

R. K. Nickols, contractor, says, "We really get good service from these tractors. They are faster at push-loading our scoops. They have more power, weight and speed and do more work than any other tractors on this job. When push-loaded by TD-24's, scrapers get 15% to 20% more loads on the fill in a day."

And so the story goes from coast to coast, wherever construction and earthmoving jobs are too tough for ordinary tractors, contractors call on the TD-24. These "Champions" dig in and deliver payloads where other tractors have trouble in traveling.

It will pay you to find out what's in the TD-24 for you. Drop in at your nearby International Industrial Power Distributor's place of business and let him show you the reasons why the International TD-24 is known across the nation as the "Champion of Crawlers."

INTERNATIONAL HARVESTER COMPANY, Chicago

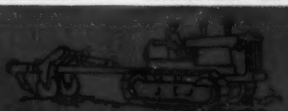


'Dozing rocky obstacles out of the way on this California mountainside demands TD-24 power.

Push-loading scrapers is faster, more profitable when you have the power, weight and speed of the TD-24 on the job.

INTERNATIONAL HARVESTER

INTERNATIONAL INDUSTRIAL POWER



Empire State Thruway Called Answer to Traffic Problem

- New York to Buffalo Without Crossing or Light
- Safe, Comfortable Motoring Promised at 70MPH

» THE 535-MILE New York State Thruway which will extend from New York City via Albany and Buffalo to the Pennsylvania state line, is the Empire State's answer to the problem of a traffic tide which has increased to a point where existing highways are over-burdened and the state's economic welfare, together with the safety and comfort of its millions of motorists, is threatened.

This superhighway, with extensions to the Connecticut and Massachusetts state lines, and to Niagara Falls, is designed to channel the great traffic flow through the most densely populated areas safely, swiftly and at low cost.

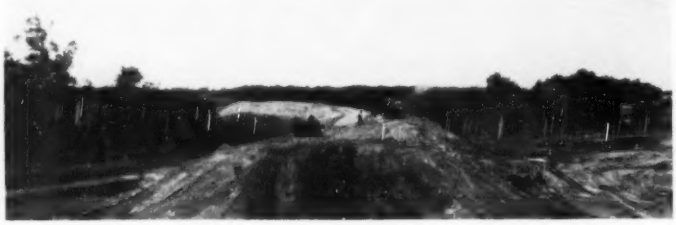
The Thruway, which will cost an estimated $450 million and require three years for completion, will readily accommodate a load of 40,000 vehicles per day in each direction at any point. Throughout its entire length, there will be no traffic lights, no cross traffic, no sharp curves, no steep hills, no sight restrictions. The grade will nowhere exceed 3 per cent and all overhead structures will have at least a 14-foot clearance.

Self-Supporting Project

In a band 20 miles wide along the Thruway's route will be found 85 per cent of the state's population, 78 per cent of the state's passenger cars, 83 per cent of the state's trucks and 15 per cent of the state's area.

The plans call for a four- to six-lane divided highway with a separating mall 20 feet or more in width. Wide and stable shoulders will be provided as a further safety measure.

The Thruway is a self-supporting project, financed by Thruway bonds. Its cost, which otherwise would be siphoned for years into the Thruway out of highway money in the state budget, will remain in the budget and be available for reconstruction, repairs and maintenance of all existing highway routes. Diversion to the Thruway of much of the heavy traffic now travelling regular state roads will decrease the amount and frequency of maintenance expenditures necessary to service remaining traffic adequately.



Scenes like above are typical on construction of 535-mile New York State Thruway. Below is shown finished section with broad median and one of many overpasses.

Benefits Cited

Proponents of the project call attention to these benefits offered by the superhighway: lower costs for consumer goods due to reduced trucking costs; greater travelling safety and lower automobile insurance; an efficient avenue for evacuation of cities and a high speed channel for moving military equipment in wartime; and more comfortable, safer motoring on the regular highway system because of the diversion of much heavy traffic from main roads to the Thruway. Passenger car owners will save in the form of more miles per gallon, less depreciation, fewer repairs.

The Thruway project has been compared to the Erie Canal in its scope and economic importance, and like DeWitt Clinton's project in the 1820's, it has progressed against considerable opposition and criticism.

The Thruway is designed for comfortable, safe driving at 70 miles per hour without danger or inconvenience to those travelling at slower speeds. Drivers at all times will be able to see at least 1,000 feet ahead.

Points for entering and leaving the Thruway will be regularly and strategically placed with a view to safety and convenience. For at least 1,200 feet on each side of such enter-leave points, the Thruway will become a four-lane instead of a three-lane highway. This outer lane will have a minimum width of 12 feet and will serve as a "slow down" lane for those leaving and a "pick-up" lane for those entering the Thruway.

No Toll Stops

Early in 1950 it was determined that the construction of the Thruway could be facilitated without burden on the general taxpayer by creating a public authority with power to issue self-supporting bonds to be paid for by users of the Thruway. Governor Thomas E. Dewey presented a pro-

posal for a three-member New York State Thruway Authority, empowered to issue $500 million worth of bonds. The 1950 legislature approved it.

During 1950, $65 million worth of Thruway work was completed, under construction or scheduled to be placed under contract.

Stops to pay toll, a bane to motorists on other toll highways, are to be eliminated for New York motorists and truckers who will be sold a special plate for an annual fee. Out-of-state users and occasional resident users will pay in a method yet to be determined.

Tallamy Heads Authority

Vitally-needed and important sections of the Thruway have already been completed. The aim of the construction program is to give top priority to areas where traffic pressure is greatest. As new sections of the Thruway are completed, they will connect with the regular highway system and be opened to traffic. No special license plates will be required until substantial portions of the Thruway are in operation.

Bertram D. Tallamy, state superintendent of public works, who also is chairman of the Thruway Authority, has pointed out the defense value of what will be the most modern and longest express highway system in the world.

New Book on Highways

Those concerned with highway building as contractor or administrator will find "Highway Design and Construction" (International Textbook Company, Scranton, Pa.) by Arthur G. Bruce and John Clarkeson a valuable reference text. The 716-page treatise not only discusses highway location and design, grading, subgrade and base, drainage, all types of pavement and the mechanics of road building; but also goes extensively into planning surveys, vehicular and speed characteristics, traffic studies, intersection study and treatment, driver behavior, sight distance, origin and destination studies and other phases which must be considered in modern road and airport construction.

Both the authors have broad backgrounds and wide experience in highway engineering. The work profusely illustrated with photographs and charts, is handled from a practical angle.

$400 Million of Road Funds Apportioned

» APPORTIONMENT of $400 million of the authorized $500 million federal-aid funds for highways in the fiscal year beginning July 1, 1951, was announced November 28 by the Bureau of Public Roads. Allocations, which will be available until June 30, 1954, are on the basis of tentative 1950 rural and urban population figures. Apportionment of the $400 million, minus an amount for administration and research, is shown below. The remaining $100 million will increase the amounts listed by about one-fourth.

State	Federal-aid System	Secondary Roads	Urban Highways	Total
Alabama	$3,738,880	$2,903,455	$1,286,166	$7,928,501
Arizona	2,626,168	1,786,614	320,211	4,732,993
Arkansas	2,940,110	2,350,527	595,361	5,885,998
California	8,131,849	4,187,880	8,097,502	20,417,231
Colorado	3,184,555	2,124,821	824,650	6,134,026
Connecticut	1,124,250	577,500	2,230,536	3,932,286
Delaware	866,250	577,500	162,586	1,606,336
Florida	2,815,821	1,833,933	1,660,893	6,310,647
Georgia	4,394,406	3,353,532	1,374,695	9,122,633
Idaho	2,189,752	1,549,929	198,742	3,938,423
Illinois	6,805,765	3,695,957	7,210,879	17,712,601
Indiana	4,202,898	2,893,456	2,404,427	9,500,781
Iowa	4,284,794	3,129,153	1,256,035	8,669,982
Kansas	4,320,317	3,017,426	908,507	8,246,250
Kentucky	3,245,485	2,686,021	1,023,047	6,954,553
Louisiana	2,724,150	1,997,042	817,195	5,538,387
Maine	1,498,567	1,069,838	450,163	3,018,568
Maryland	1,554,030	1,062,979	1,365,176	3,982,185
Massachusetts	2,233,811	820,396	3,743,804	6,798,011
Michigan	5,500,792	3,330,906	4,610,147	13,441,845
Minnesota	4,661,082	3,282,557	1,716,544	9,660,183
Mississippi	3,158,557	2,628,697	596,601	6,383,855
Missouri	5,114,679	3,452,520	2,449,746	11,016,945
Montana	3,582,514	2,462,611	248,626	6,293,751
Nebraska	3,434,968	2,435,185	616,270	6,486,423
Nevada	2,290,666	1,528,458	88,485	3,907,609
New Hampshire	866,250	577,500	311,591	1,755,341
New Jersey	2,288,496	768,588	3,925,036	6,982,120
New Mexico	2,894,910	1,992,184	343,666	5,230,760
New York	8,330,683	3,328,599	13,481,757	25,141,039
North Carolina	4,345,090	3,708,107	1,347,512	9,400,709
North Dakota	2,580,306	1,869,724	190,567	4,640,597
Ohio	6,166,871	3,741,632	5,808,155	15,716,658
Oklahoma	3,800,555	2,716,615	1,144,395	7,661,565
Oregon	3,046,789	2,124,458	768,408	5,939,655
Pennsylvania	6,934,758	4,120,136	7,141,748	18,196,642
Rhode Island	866,250	577,500	652,029	2,095,779
South Carolina	2,393,911	1,977,140	651,251	5,022,302
South Dakota	2,737,783	1,954,194	203,457	4,895,434
Tennessee	3,782,775	2,949,921	1,408,270	8,140,966
Texas	11,425,744	7,638,141	4,269,828	23,333,713
Utah	2,038,560	1,346,199	426,384	3,811,143
Vermont	866,250	577,500	197,827	1,641,577
Virginia	3,357,702	2,644,389	1,269,583	7,271,674
Washington	2,938,454	1,960,987	1,415,700	6,315,141
West Virginia	1,924,872	1,672,009	657,542	4,254,423
Wisconsin	4,193,845	2,918,688	2,032,084	9,144,617
Wyoming	2,202,367	1,493,000	117,594	3,812,961
Hawaii	866,250	577,500	362,448	1,806,198
District of Columbia	866,250	577,500	933,968	2,377,718
Puerto Rico	909,163	948,896	932,206	2,790,265

Here is the New Yardstick for Crawler Tractor Performance

Allis-Chalmers HD-20 Hydraulic Torque Converter Tractor

● **BIG AND RUGGED** . . . 41,800 lb. of properly balanced weight . . . long, wide, sure-gripping tracks. Handles the toughest jobs in stride!

● **POWERFUL** . . . Newest, latest GM 2-Cycle Diesel Engine; Model 6-110. Plenty of POWER . . . for longer life, lower maintenance, increased production.

● **HYDRAULIC TORQUE CONVERTER DRIVE** that eliminates most gear shifting and keeps tractor working smoothly at higher average speeds.

● **SIMPLE UNIT ASSEMBLY** . . major assemblies removed and repaired or replaced without removing adjacent parts.

● **EXTENDED LUBRICATION PERIODS THROUGHOUT** . . . plus 1,000-hour periods on truck wheels, track idlers and support rollers with A-C's POSITIVE SEAL.

● **EVERY OPERATOR COMFORT** . . . seat, platform, controls, visibility . . . hydraulic finger-tip steering, self-energizing brakes, practically no gear shifting.

Get the full story from your Allis-Chalmers dealer. Arrange for a demonstration on your job at the earliest opportunity.

World's Finest Tractor

For Greater Production
For Easier Operation
For Simplified Servicing

ALLIS-CHALMERS
TRACTOR DIVISION • MILWAUKEE 1, U. S. A.

Originator of the Torque Converter Tractor

Work Progressing on York River Bridge

• Will Be Largest Double Swing Span Bridge in World

» VIRGINIA'S $9 million George P. Coleman Memorial bridge across the York River, connecting historic Yorktown and Gloucester Point, will be the largest double swing span in the world. Located on the most direct route between Washington and Hampton Roads, the structure has definite military significance. It will replace a ferry now serving traffic on U. S. Highway No. 17.

The bridge will require 22 million pounds of structural steel and 2½ million pounds of reinforcing steel. Piers and flooring will take some 50,000 cubic yards of concrete. Foundations for piers and supports will necessitate the moving of 47,000 cubic yards of material.

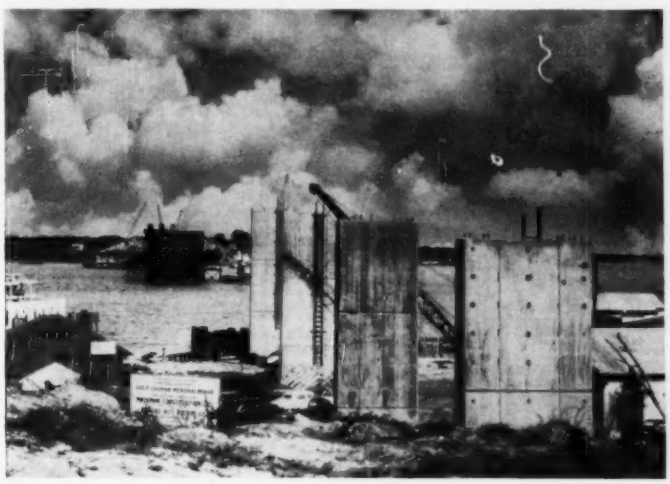
Supporting the bridge will be 14 land piers and six huge river piers. An immense earth fill, 700 feet in length and 200 feet wide at the base and containing 75,000 cubic yards of earth, will carry the road to the bridge across the swampy Gloucester shore.

The bridge will be 3,750 feet in length with a 26-foot clear roadway and two pedestrian sidewalks. At its highest point, it will be 120 feet above the water. Two 500-foot spans can be swung into open position to provide a 450-foot horizontal clearance and permit the passage of the world's largest vessels.

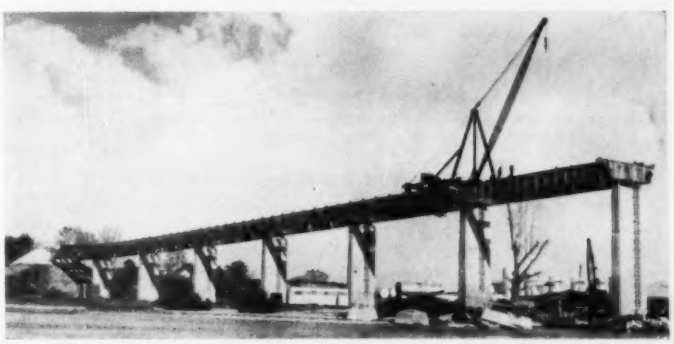
A difficult construction feat is the sinking of the huge steel and concrete caissons which will support the six river piers. These structures measure approximately 50 x 65 feet in cross section and 110 feet in height. They must be sunk into the river bed and then driven 60 feet into the river bottom. Their tops, on which the piers will rest, will be 40 feet below the river level. The channel at this point is 90 feet deep. The accompanying illustration of the completed approach piers shows one of these caissons in the background.

Work on the bridge began in December 1949 with the Massman Construction Company, A.G.C., and the Kansas City Bridge Company, A.G.C., both of Kansas City, Missouri, having the contract for the substructure. The Virginia Bridge Company, Roanoke, Virginia, has the contract for the superstructure and bridge decking. Approaches and right-of-way are included in the estimated cost of $9 million. Completion will be in 1952.

The bridge is being built by the Virginia Department of Highways, with Parsons, Brinckerhoff, Hall and MacDonald as the consulting engineers. Toll revenue bonds are financing the undertaking.



Approach piers to York River Bridge, named in honor of the late George P. Coleman, Virginia Highway Commissioner from 1913 to 1923.



On the Gloucester shore, 90-foot steel girders are placed on approach piers. Job still has long way to go.

Moles Award Corey

Lester S. Corey, president of the Utah Construction Company, A.G.C., of Ogden, Salt Lake City and San Francisco, has been chosen to receive the non-member award given by The Moles for outstanding contributions to construction progress.

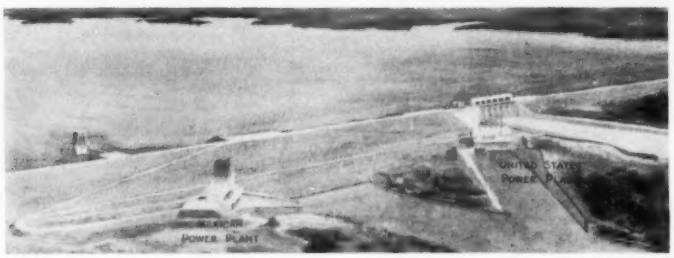
Mr. Corey, once a timekeeper for the firm he now heads, has been closely connected with management and direction of the construction of Grand Coulee, Bonneville, Hoover, Davis and other dams, and with the construction of many outstanding railroad jobs.

The Moles, a society of heavy construction firms, presents awards yearly to a member and a non-member.

Ray N. Spooner, member award winner, is famed in New York for building three of the city's largest piers. He is treasurer and principal of Allen N. Spooner & Sons, Inc., New York.

U. S.-Mexican Falcon Dam Job Awarded

- Two Contracts, Labor from Two Countries Involved in Project



» ADD to the list of unique projects the award on November 30 to seven A.G.C. firms of contracts for construction of the Falcon Dam and Power System on the Rio Grande River, boundary line between the United States and Mexico.

Cost of the project is being borne jointly by the two countries, and contracts were awarded by the International Boundary and Water Commission, constituted by treaty between the United States and Mexico. Bids for the American section were opened November 30 at El Paso, Texas, and for the Mexican section on the same date and hour at Juarez, Mexico. A number of bids were received.

Contract for the American section, at $7,801,064, was awarded to the "Falcon Dam Constructors," composed of the C. F. Lytle Company, Sioux City, Iowa, sponsor of the undertaking; Amis Construction Company, Oklahoma City, Oklahoma; San Ore Construction Company, McPherson, Kansas; Massman Construction Company, Kansas City, Missouri; Foley Brothers, Inc., St. Paul, Minnesota; Edward Peterson Company, Omaha, Nebraska; and Tellepsen Construction Company, Houston, Texas.

Operating as "Constructora Intercontinental S.A.," the same firms won the contract for the Mexican section at 68,525,983 pesos ($7,922,079).

Work on the project, 75 miles below Laredo, Texas, is to begin immediately and be completed in three years.

Mexican labor is called for on the Mexican side, and U.S. labor on the American part.

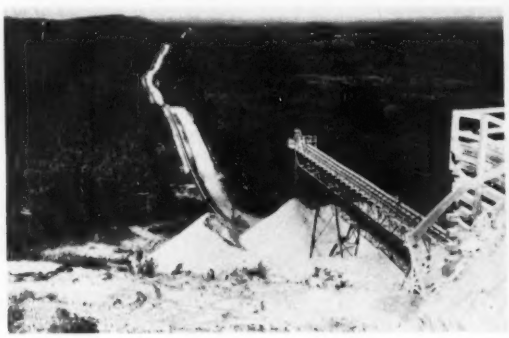
Study New England Resources

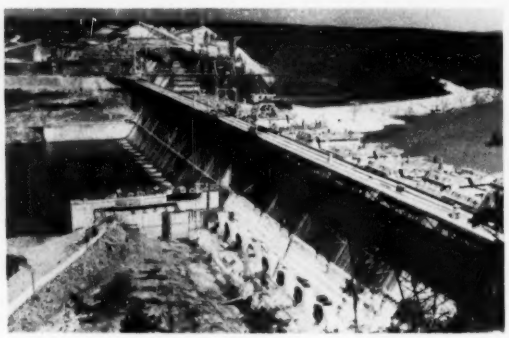
A comprehensive study of the land and water resources of the New York-New England area has been asked by President Truman in a letter dated October 11 to the departments of Interior, the Army, Agriculture and Commerce, the Federal Security Agency, the Federal Power Commission and the governors of the states concerned.

This survey will cover electric power generation and transmission, forest management, fish and wildlife conservation, flood control, mineral development, municipal and industrial water supply, navigation, pollution control, recreation and soil conservation.

The initial steps, the President points out, will be an inventory of the land, water and all related natural resources available for utilization, together with a survey of the projected regional and national requirements which might be met through more effective utilization of the region's natural resources.

Certain projects in the area to be covered will be good investments for the future of the region and the nation and should be started at once, the President asserted. Among these are further development of the Niagara Falls power potential and the construction of the St. Lawrence seaway and power project.





Movement of 4-Million-Ton "Mountain" 7 Miles Near Completion

At left above is shown a belt conveyor carrying crushed rock from the crusher to stockpiles on the side of Lee's Mountain, Arkansas. From there a 21-flight belt conveyor carries 650 tons an hour at 525 feet per minute to the site of Bull Shoals Dam seven miles away on the White River (barely visible at top left center as white speck). At right is shown work on the $78 million structure being constructed for the Army Engineers by the Ozark Dam Constructors, with completion scheduled for next fall. The conveyor, second longest ever to be constructed, was built by Goodyear Tire & Rubber Company. Hewitt-Robins, Inc., made the 14,000 idlers, or rollers. The entire system requires only seven men for maintenance, and was chosen in preference to a temporary railroad, highway, or aerial tramway. M. H. "Harvey" Slocum, project manager for the general contractor and Flippin Materials Company, has been credited with the speed and safety of construction.

Kansas Forum Meets

The Kansas Builders Forum, composed of the Kansas chapters of the American Institute of Architects, the Master Plumbers Association, the National Electrical Contractors Association and of The Associated General Contractors of America (Builders Division), held its first session recently.

Formed to improve industry relations and a mutual understanding of problems, the organization approved five recommendations and rejected two. The approved recommendations are in no event considered binding on the four members. Each member body has one vote.

Recommendations accepted were that:

1. Where separate contracts are let, the owner and architect assign to each contractor only the responsibility for repairs made necessary by his own workmen.
2. *A Suggested Guide To Bidding Procedure,* developed jointly by the A.I.A. and the A.G.C., be used throughout the state of Kansas.
3. The state of Kansas adopt a uniform building code.
4. Requiring large numbers of unit prices from the contractor is unnecessary and should be avoided.

Disapproved was the proposal that when a single general contract was not awarded, the general contractor should not be required to accept a liquidated damage clause for delay in completion or bear the resulting added expense. Also turned down was the suggestion that a single general contract be awarded when bonus and penalty clauses were included.

Forum officers are: president, Wendell Parks (A.I.A.), Wichita; vice president, B. B. Gage (K.M.P.A.), Salina; and secretary-treasurer, E. L. Bowers (A.G.C.), Topeka. The next forum will be held in the fall of 1951. Board meetings will be held once or twice during the year.

Start Dallas Bank Building

Excavation contract for the 36-story, $17.5 million Republic National Bank Building in Dallas was awarded late last month to Vilbig Bros., Inc., A.G.C., of Dallas. The building, to be located at Pacific Avenue and Bryan and Ervay streets, is expected to be completed in about two years.

Schedule Beaten in Building Big Hospital

• Finest Institution of Its Kind to Be Finished Next Month

» CONSTRUCTION progress on the naval hospital at St. Albans, Long Island, has been so rapid that the installation is expected to be finished by January, 1951—three months ahead of schedule.

Built by the Thompson-Starrett Company, Inc., A.G.C., of New York, under supervision of the Navy's Bureau of Yards and Docks, the hospital when completed, will be one of the finest anywhere in the world. Erected at a cost of nearly $15 million, the largest lump sum contract ever awarded by the Navy, the project consists of a six-story administration and treatment building, a two-story subsistence building, and six three-story ward buildings. It will be the only naval hospital in the New York area, since the naval hospital in Brooklyn, built in 1831, is being abandoned on account of obsolescence.

Original plans for the hospital were drawn before World War II and some foundations had been laid when hostilities began. The war necessitated a quickly-erected temporary hospital which served during the war and will continue to function until the permanent facilities are complete. The site of the hospital was formerly part of the St. Albans Country Club.

The new hospital will contain every modern development in hospital construction. The entire installation will be equipped with conduits for television as well as a complete bedside radio system. Operating units will be air-conditioned, with humidifiers to control relative humidity at 55 to 60 per cent. Floors will be of terrazzo set in six-inch metal grids which are grounded.

The conventional super-voltage X-ray unit will be of one-million-volt capacity and will be controlled from an adjoining room with viewing window between. The viewing window will consist of two panes of ¾ inch leaded glass with a one-foot space filled with distilled water between. The doors of this room will contain one inch lead sheets.

A feature of this clinic will be facilities for making its own "radon seeds" and radon tubes, a practice not followed in most hospitals.

In addition, there will be facilities for radiological therapy, including an isotope laboratory for diagnosis and treatment of disease, and a color television system for televising operating techniques for instruction.

Capt. M. Y. Neely, USNR, is resident officer in charge of construction.

St. Albans Naval Hospital nearing completion.

200 Milwaukee Area Apprentices Graduate

- A.G.C. President Walter L. Couse Addresses Banquet Meeting

» MORE THAN 200 graduate carpenters, millworkers, and cabinet makers of the Milwaukee area labor-management apprentice training program were addressed recently by Walter L. Couse, Detroit, president of The Associated General Contractors of America.

Milwaukee Sentinel

The graduates, accompanied by their wives, were given certificates during a banquet held in September at the Schroeder Hotel in Milwaukee.

Other speakers included George Haberman, president of the Wisconsin Federation of Labor; Elton Schultz, president of the Milwaukee Builders Association; and Robert Frey, a member of the graduating class.

At left, civic and industrial leaders are congratulating class members. Standing, left to right, are: George Benish, manager of the A.G.C.'s Milwaukee Chapter; Harold W. Jennrich, U.S. Bureau of Apprenticeship; Ray A. Anderson, member of the Milwaukee Area Carpenters Joint Apprenticeship and Training Committee; Harvey Anderson, business manager of the Carpenters District Council; R. W. Hansen, attorney; Erwin A. Schmidt, banquet chairman, and Mr. Couse.

Seated are: Mrs. and Mr. William Reineking, Mrs. and Mr. Gerard Dettlaff, Milwaukee, and Mr. and Mrs. Charles Buehler, Waukesha.

200,000 See Minnesota Bricklaying Contest

- Sponsored by A.G.C. Chapter, S. C. P. I., and Labor

» THE FINALS of the Milwaukee Bricklayers' Apprentice Competition were held before a crowd of 200,000 who attended this year's state fair.

In this great mass of spectators who surrounded the booth were numbers of contractors, architects and journeymen who watched 21 apprentices display their skills by building an outdoor fireplace which was later delivered to a lucky one of 85,000 chance holders.

Winner of the 300-point competition, Donald Johnson, St. Paul, who was only 23 points ahead of the low scorer, was given a cup which he turned over to his sponsors, the St. Paul Apprenticeship Committee.

In the picture at left are shown, seated: Johnson, first place winner, and Richard Bastien, St. Cloud, fourth place. Standing: William Conners, Bricklayers, Masons and Plasterers International Union representative, of Madison, Wisconsin, who presented the prizes; Roy Shelgren, St. Paul, vice president of the A.G.C. of Minnesota's Builders Division; R. W. Weitz, Des Moines, Iowa, chairman of the A.G.C. Apprenticeship Committee; Wesley Barrette, Stillwater, second place winner; Dale Wicklund, Deer River, third place winner; Albert Larson, Minneapolis, president of the Minnesota Chapter, American Institute of Architects; and Joseph McGlade, Waterloo, Iowa, Structural Clay Products Institute.

The contest was jointly sponsored by the Associated General Contractors of Minnesota, the Structural Clay Products Institute, and the Minnesota State Conference of Bricklayers. The small variation in points and the large number of people who attended the competition testify to the success of the state's apprentice training program.

Serving the Employers of America

In the construction field, safer operation and lower insurance costs result from using Employers Mutuals services!

CONTRACTORS whose workmen's compensation and public liability insurance is carried by Employers Mutuals have at their command the very highest quality insurance protection and service that money can buy! They have all the advantages of the skilled services of an insurance organization especially geared to the contractor's problems . . . and to their solution in the best and most economical way.

Employers Mutuals specialists, including a competent staff of construction engineers, work closely with the contractor and his employees in eliminating accident hazards, in job-safety and first-aid training and the handling of claims in a prompt, equitable and friendly manner . . . All of these unsurpassed services are carried out by men of ability, experience and character—company-trained to cooperate with construction executives in safeguarding human and material resources.

Safer and smoother operation, improved production at lower cost, better morale—all are promoted by these splendid services. Furthermore, their use often results in substantial reductions in premium costs . . . a still further saving in addition to dividends returned regularly to him as a policyholder-owner of Employers Mutuals!

Employers Mutuals write: Workmen's Compensation—Public Liability—Automobile—Group Health and Accident—Burglary—Plate Glass—Fidelity Bonds—and other Casualty Insurance. Fire—Extended Coverage—Inland Marine—and allied lines. All policies are nonassessable.

PROTECTION BY EMPLOYERS MUTUALS OF WAUSAU SERVICE

MAKE INSURANCE UNDERSTANDABLE

EMPLOYERS MUTUALS of WAUSAU

Home Office: Wausau, Wisconsin · Offices in principal cities · Consult your telephone directory

EMPLOYERS MUTUAL LIABILITY INSURANCE COMPANY OF WISCONSIN · EMPLOYERS MUTUAL FIRE INSURANCE COMPANY

Hauling up 10% grades ...loads weigh 37½ tons

On bench stripping operations at their Bagdad, Arizona mine, the Bagdad Copper Corporation brought in two 35-ton, rear-dump Tournarockers . . . teamed them with a 4-yard shovel . . . and report the following big-tonnage results:

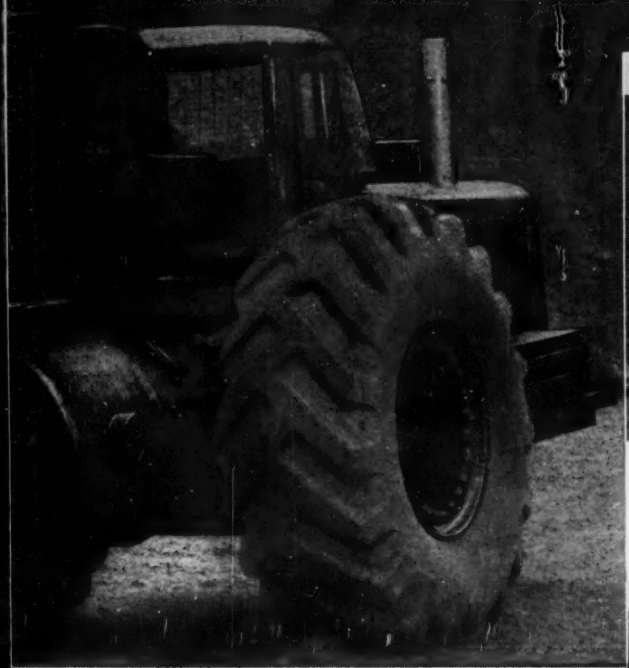
Each big-capacity LeTourneau rear-dump rock wagon is loaded with 6 to 7 passes from the well-heaped 4-yard dipper in less than 2 minutes . . . and, according to actual weight test, loads carried average 37½ tons. Hauling these oversize loads along narrow benches . . . down 10½% grade for 450 feet . . . then, up 660 feet at 10%, each Tournarocker averages a 4510-foot round trip every 11.2 minutes, including load, haul, dump and return. Giant, 4-wheel air brakes, and positive electric power steer let operators haul in 3rd gear along the benches with complete confidence and safety. On the 10% mine grades, Tournarockers climb easily in second, with full loads. Pull is exceptionally smooth because of power-proportioning differential, which automatically delivers 4 times the power to drive wheel on firmest footing.

On the spoil bank, these husky haulers also show a lot of speed advantages, 90° turns, controlled by push-button electric steer, give fast, easy spotting. Power on front drive wheels lets Tournarocker back up clear to edge and dump over bank . . . eliminates most clean-up. Simple electric

LETOURNEAU PEORIA, ILLINOIS **TOURNAROCKERS**

HIGH SPEED on RUBBER PLUS TRACTION ADVANTAGES of a CRAWLER

TOURNAROCKERS Speed Stripping for Bagdad Copper



PUTS LOAD OVER EDGE OF BANK

In dump position, back end of Rocker body is below rear wheels . . . bowl rests on edge of bank . . . loads dump clear. Positive holding action of big 4-wheel, disc-type air brakes makes this operation safe. With power on front wheels, drivers are always on firm footing for quick, easy pull-away from edge.

hoist raises body to vertical position . . . smooth, streamlined bowl clears the 37½-ton loads in an average of 38 seconds, total hoist and dump time!

Sizes: 50, 35, 16, 9 tons

Like Bagdad Copper Corporation, it will pay you to investigate the big tonnages and new low hauling costs possible on your work with these revolutionary, rear-dump rigs. Remember, too, with every size Tournarocker . . . 50, 35, 16 or 9 tons . . . you have money-saving interchangeability with Carryall scrapers, cranes, flat-beds and many other auxiliary hauled units. That assures greater operating flexibility and steady earnings the year round! Your LeTourneau Distributor has all the facts . . . call him for more information . . . write NOW.

Tournadozer, Carryall, Rooter—Trademark Reg. U.S. Pat. Off. Tournarocker—Trademark M25

BAGDAD COPPER ALSO USES TOURNADOZER

Rubber-tired Tournadozer is Bagdad Copper Corporation's high-speed handyman. Its 180 "horses" on 21.00 x 25 tires give quick, "run-anywhere" service for clean-up around the shovel, haul road maintenance. Rear-mounted PCU makes it readily available for use with 4-wheel scraper, Rooter, or other cable-operated tools.

Mail today to: **R. G. LeTOURNEAU, INC., Peoria, Illinois**

Send us specs., price and performance data on ☐ 50 ☐ 35 ☐ 16 ☐ 9-ton Tournarockers. ☐ Also send facts on 180 h.p. rubber-tired Tournadozer.

NAME..... TITLE.....

COMPANY..... Dept. or Div.....

STREET.....

CITY..... STATE.....

LET

Boston Chapter Has Active PR Committee

- Washington Material Used Advantageously at Local Level

» THE ASSOCIATED General Contractors of Massachusetts, Inc., with headquarters in Boston, is an A.G.C. chapter that believes thoroughly in public relations, and has an active committee with a definite program set up to implement this belief.

The objectives of the chapter's public relations are two fold, as outlined by Samuel H. Zitter, Platt Contracting Company, Cambridge, Massachusetts, chairman of the public relations committee. One aim is to keep members informed about all chapter activities and to enlist new members for the organization. This is done through an effective direct-by-mail campaign created in the chapter's offices and by making generous use of material developed in Washington.

The other section of the program is devoted to selling the members of the chapter to the public as general contractors of skill, responsibility and integrity. The people of New England who have or may have contracts to award are given the A.G.C. story through the medium of display advertising, newspaper publicity, radio talks and a speaker's bureau. Both external and internal campaigns are meeting with marked success, according to Allan E. Gifford, executive secretary of the chapter.

"Our campaign is designed to tie in with the national effort," said Mr. Gifford. "We are applying the material we receive from Washington at the local level and it is working out most satisfactorily."

The chapter retained the Boston advertising agency of Eddy-Rucker-Nickels to bring a professional touch to its advertising copy and press releases. In addition to a budget set up for public relations for 1950, a sum was allocated for the purchase of additional copies of THE CONSTRUCTOR. Mr. Gifford points out that the cost of the campaign, which includes the purchase of the A.G.C. magazine, is only $1.24 per week per active member.

Advantage is taken of the opportunity to disseminate news of the chapter through the local newspapers and radio stations. Messrs. Zitter, Gifford, John Volpe and others are often asked to address luncheon clubs, business groups, college classes and other bodies, and in this way, impress upon important segments of the public the necessity for careful selection of the contracting firm that is to build its structures.

Paid advertising is carried in local business publications that have a readership of bankers, realtors, architects, industrialists, public officials and others who are concerned with awarding contracts for public and private work.

The confidential bulletins issued from time to time to members are patterned closely after those developed by the national headquarters in Washington. "Excellent results are obtained by circulating documents that come to us from the association's public relations department," declared Mr. Zitter.

If you want MAXIMUM VALUE for your Investment in Construction
CONSTRUCT by CONTRACT
Do You Have a Constuction Problem?
ONE ALL-INCLUSIVE GENERAL CONTRACT
SAFEGUARDS PUBLIC FUNDS
When You Build ... Undivided Responsibility Is Your Key To Lower Construction Costs

Attractive, varied displays feature advertising program

Carolina Members Publicized

Contribution to American progress made by the members of the A.G.C. Carolinas Branch is described in the October issue of *South Carolina Magazine*.

Most of the tremendous building program in South Carolina is credited to the members of the Carolinas Branch, A.G.C., "the recognized trade association of the Construction Industry in North and South Carolina, with 275 regular general contractor members, and 638 associate members."

Bridges, highways, factories, apartments and public buildings which are being constructed throughout the state by members of the Carolinas Branch are displayed in 12 picture pages.

Public Relations Accented

The Executive Committee of the Associated General Contractors of West Virginia has authorized the printing of the chapter's membership roster which is to be distributed for public relations and market development purposes, to all registered architects, professional engineers, county and city engineers and road officials throughout the state.

A copy of the A.G.C. booklet, *Undivided Responsibility—Key to Lower Construction Costs* will be sent with each copy of the roster.

"Our equipment performs better, stands up longer with GULF QUALITY LUBRICANTS and FUELS"

says Peter Salvucci

Peter Salvucci, Waltham, Mass., has a $957,946 contract for extensive highway construction work in the Towns of Acton, Boxboro, and Littleton, Mass. The projects are well ahead of schedule.

Peter Salvucci is one of a number of prominent New England contractors who find that it pays to use Gulf quality lubricants and fuels.

There are three solid reasons why so many leading contractors select Gulf products. One is performance—the kind of lubrication and fuel efficiency that insures smooth, dependable operation and low maintenance costs. Another is the high type of engineering service Gulf provides. Third, Gulf's prompt delivery service.

Write, wire, or phone your nearest Gulf office today and arrange to use Gulf quality lubricants and fuels on your next job. Gulf's products and that good Gulf service are quickly available to you through 1200 warehouses located in thirty states from Maine to New Mexico.

Gulf Oil Corporation · Gulf Refining Company

GULF BUILDING, PITTSBURGH, PA.

Sales Offices - Warehouses

Located in principal cities and towns throughout Gulf's marketing territory

GULF

STANDARD FORMS

COVERING IMPORTANT CONTRACTING PROCEDURE

Prepared by The Associated General Contractors of America and Cooperating Bodies

Order No.	MANUALS	Per Copy	Per Dozen	Per 100
1.	A.G.C. Manual (Contains documents listed below: Nos. 3-30, inclusive, and Nos. 34, 35, 36, 36a, 37, 38)	$5.00	$50.00	
2.	Accident Prevention Manual (Revised and enlarged 1949)	3.00	30.00	$210.00
	CONTRACTS			
3.	Standard Contract for Engineering Construction issued by the Joint Conference on Standard Construction Contracts	.25	2.75	20.00
4.	Standard Building Contract of the American Institute of Architects—Revised 5th Edition	.50		47.50
5.	Subcontract form—American Institute of Architects—Revised 5th Edition	.10		9.50
7.	Standard Government Contract and Instructions to Bidders	.10	.50	4.00
8.	A.G.C. Cost Plus a Fee Contract	.10	.50	2.50
9.	A.I.A. Cost Plus a Fee Agreement between Contractor and Owner	.10		
11.	Equipment Rental Agreement	.10	.50	3.00
12.	A.G.C. Proposal Form	.10	.50	3.00
	ESTIMATING AND ACCOUNTING			
16.	Building Estimate Summary	.10	.50	3.00
17.	Job Overhead Summary	.10	.50	3.00
20.	Contractors' Equipment Ownership Expense (Itemized tables of ownership expense elements with instructions for application. Revised 1949)	1.00	10.00	65.00
21.	Equipment Record—Bond paper	.10	.50	3.00
22.	Equipment Record—Cardboard	.10	.50	3.50
	INVESTIGATION OF BIDDERS			
24.	Standard Pre-Qualification Questionnaires and Financial Statements for Prospective Bidders—Complete in Cover. Engineering Construction (For Qualifying Before Bidding)	.20	1.80	12.00
25.	Standard Pre-Qualification Questionnaires and Financial Statements for Prospective Bidders—Complete in Cover. Building Construction (For Qualifying Before Bidding)	.20	1.80	12.00

Order No.	INVESTIGATION OF BIDDERS (Continued)	Per Copy	Per Dozen	Per 100
26.	Standard Questionnaires and Financial Statement for Bidders—Complete in Cover. Engineering Construction (For Qualifying After Bidding)	.20	$1.80	$12.00
27.	Standard Questionnaires and Financial Statement for Bidders—Complete in Cover. Building Construction (For Qualifying After Bidding)	.20	1.80	12.00
28.	Financial Statement and Questionnaire for Credit Transactions	.20	1.80	12.00
	MISCELLANEOUS			
29.	Insurance Check List	.10	1.00	5.00
30.	The Functions of a General Contractor	.10	.75	6.00
34.	A.G.C. Governing Provisions	.10	.50	3.00
35.	A.G.C. Code of Ethical Conduct	.10	.50	3.00
36.	Concrete Mixer Standards	Single copies — no charge; quantity prices on application.		
36a.	Contractors' Pump Standards			
37.	A.I.A. Standard Form of Arbitration Procedure			
38.	Suggested Guide to Bidding Procedure			

FOR A.G.C. MEMBERS ONLY

A.G.C. EMBLEM

List of Styles and Prices on request.

SIGNS AND SEALS

40.	A.G.C. Metal Seal (red and black) 10" dia.	.40
41.	A.G.C. Decalcomania Seal (red and black)	
	a. 10" dia.	.20
	b. 5" dia.	.10

Metal Seals and Decals: 20% discount for orders of more than 50; 40% discount for orders of 200 or more.

43. A.G.C. SOCIAL SECURITY FORMS

Form SS1: Application for Employment; Form SS2: Employees' History Record; Form SS3: Employees' Employment and Earnings; Form SS4: Payroll. List of prices and styles will be furnished to A.G.C. members on request.

USE THE CONVENIENT COUPON TO PLACE YOUR ORDER

Order No.	Amount	Cost
1.		
2.		
3.		
4.		
5.		
7.		
8.		
9.		
11.		
12.		
16.		
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36a.		
37.		
38.		
40.		
41a.		
41b.		

43. Price List and Samples ☐

Price List and Styles of Emblem ☐

TOTAL COST _____

Make Checks payable to CONSTRUCTION FOUNDATION, A.G.C., Munsey Building, Washington 4, D. C.

Gentlemen: Enclosed find check for $_____ for which please send materials as ordered by number herewith.

*Name*_____ *Address*_____

*City*_____ *Zone*_____ *State*_____

Dec. 1950

Boston Host to A.G.C. Annual Convention

• Importance of Meeting Presages Record Attendance

» AT THE 32nd annual convention of The Associated General Contractors of America, to be held in Boston, Massachusetts, February 26-March 1, 1951, members will consider the impact of the world crisis on the construction industry as well as measures that will increase the industry's efficiency and maintain a high volume of construction under trying circumstances. The importance of the matters to be discussed is such that a record attendance is anticipated.

Boston's Hotel Statler will be convention headquarters. The famous Copley Plaza, three blocks from the Statler, will also be available to the conventionites. Information and hotel reservation cards were sent to all A.G.C. members on November 17. The convention committee of The Associated General Contractors of Massachusetts, 18 Tremont Street, Boston 8, urge an early return of the cards to that address. The two convention hotels will not accept direct requests. Reservations must be made through the committee.

While the association expects to accomplish a large volume of essential business during the four-day sessions, the convention committee promises that the entertainment features of this meeting will be outstanding. Few American cities afford the fascinating contrasts of historic Boston.

While the convention officially takes up Monday, Tuesday, Wednesday and Thursday of the week of February 26, committee meetings will be held Saturday and Sunday, February 24 and 25. The Secretaries' and Managers' Council will meet Sunday, February 25.

The Governing and Advisory Boards will meet Monday morning, and the convention opens officially Monday afternoon. Speakers of national prominence will address the meetings. Division meetings will be held on Tuesday and Wednesday afternoons. The annual banquet will be held Thursday evening.

Among the special events scheduled will be a fathers' and sons' breakfast, a chapter and branch presidents' breakfast, various luncheons, dinners and receptions. Much emphasis is being placed on the entertainment program for the ladies.

The Associated General Contractors of Massachusetts are hosts to the convention. Charles B. Solomon is president, and Allan E. Gifford is executive secretary of the chapter. Moses Slotnik, retiring president, is chairman of the convention committee which is composed of William F. White, N. B. O'Donnell, Stanley D. Porter, Murray Weiss, John Volpe and Samuel Zitter.

Mr. Zitter, who is chairman of the chapter's public relations committee, will have charge of promotion. Housing will come under Mr. Volpe. Registration and compiling of guest lists are in the hands of Mr. Porter. Fiscal matters will be handled by Mr. White. Murray Weiss will be in charge of all arrangements for entertainment of convention guests. Miscellaneous matters are delegated to Mr. O'Connell.

Nominate A. S. Horner for Vice President

• Executive Committee Action after Death of Armstrong

» ARTHUR S. HORNER, president of the A. S. Horner Construction Co., Denver, Colorado, has been nominated for vice president of The Associated General Contractors of America in 1951, President Walter L. Couse, of Detroit, Michigan, announced.

Mr. Horner was nominated by the association's Executive Committee, which acted for the Governing Board in approving the recommendation of the Nominating Committee.

Association procedure is that the Governing Board nominates officers for the coming year at its mid-year meeting. The late Gayle G. Armstrong, of Roswell, New Mexico, was nominated in September but died in October.

Glenway W. Maxon, president of the Maxon Construction Co., Dayton, Ohio, the current vice president, was nominated for president in 1951 by the boards. Balloting will take place during December, and the new officers will be installed at the conclusion of the association's 32nd annual convention in Boston, March 1, 1951.

Mr. Horner is a native of Topeka, Kansas. He graduated from the Topeka High School and attended Washburn College for a year before switching to the University of Colorado from which he graduated in 1922 with a degree in civil engineering. His father had been a building contractor, so he grew up in the construction industry. After working as an inspector, engineer and assistant superintendent on various construction projects after graduation, he established his own company in 1927.

Prior to the war the company specialized in the construction of bridges, viaducts and underpasses. During the war it built sewage disposal plants, water reservoirs and other structures at military installations. Since 1942 the company has done much work for the Colorado Fuel & Iron Corp., of Pueblo, and has been a part of joint ventures working on major portions of the Colorado-Big Thompson and Bonny Dam projects in Colorado. He also engages in highway construction.

Arthur S. Horner

Mr. Horner has been president of the Colorado Contractors Association, chairman of the national association's Heavy Construction and Railroad Contractors' Division, and a member of the Executive and other committees.

He is married and the father of a daughter.

Western Chapters Discuss Labor Relations

» LABOR relations was the principal topic of discussion during the all-day session in San Francisco of the Western Chapters Conference, A.G.C., composed of chapter officials from 11 western states. Host for the October 30 meeting was the Central California Chapter, A.G.C.

James D. Marshall, assistant managing director of the national association, spoke on the national labor picture and the effect of recent government controls on the construction industry.

In general sessions, each chapter reported its view of future labor negotiations and cited prevailing contract terms. Contracts ranging from one to five years were discussed. Most of them contained clauses granting graduated pay increases.

Adopted was the recommendation that the conference chairman appoint a labor committee composed of one member from each chapter for the purpose of cooperating in the dissemination of labor information between and within chapters.

Shown above, seated from left to right are: J. A. Thompson, Inglewood, California, former president of the Southern California Chapter; R. A. Smith, Los Angeles, chairman of the Labor Committee, Southern California Chapter; Hal L. Royden, Phoenix, Arizona; A. S. Horner, Denver, A.G.C. vice president-elect; W. C. Tate, San Francisco, chairman of the Western Chapters Conference; Frank G. Corker, San Francisco, secretary-manager, Central California Chapter; and J. D. Marshall, A.G.C. assistant managing director, Washington, D. C. Standing, left to right: Don L. Cooney, Tacoma, Washington; Harold O. Parish, Benecia, California; John McLeod, Paramount, California, member of the national Executive Committee and Chairman of the Heavy Division; Gordon H. Ball, Berkeley; George C. Loorz, Oakland, president, Northern California Chapter; Peter Jacobsen, Ogden, Utah; Winfield H. Arata, San Francisco, secretary-manager, Northern California Chapter; W. D. Shaw, Los Angeles, manager, Southern California Chapter; A. H. Harding, Portland, Oregon, manager, Portland Chapter; Charles W. Hudson, Oakland; Karl F. Jacobsen, Portland, president, Portland Chapter; A. L. Atherton, Seattle; Ellis W. Barker, Salt Lake City; John F. Barrett, Jr., San Francisco; Mr. Phillips, San Francisco; and Gardiner Johnson, San Francisco.

Connecticut Chapter Elects Edward E. Bray

• Grisham Reports Welfare Fund Outstanding Achievement

» THE CONNECTICUT State Chapter, A.G.C., elected Edward E. Bray, of Bridgeport, as its 1951 President, succeeding Earl C. Wheeler, Hartford. Members attending the October 23 meeting at New Haven heard a review of the year's accomplishments in the report of Executive Vice President Charles F. Grisham.

The outstanding achievement, Mr. Grisham reported, is the chapter's welfare insurance fund, which is being used as a pattern in other areas.

Instead of setting up a welfare agreement with several craft unions requiring trustees for each fund, the chapter has one agreement with all unions, requiring one Board of Trustees, on which two A.G.C. members serve. The fund is based on an even rate of cents per hour worked, and not on gross payroll with the accompanying alterations for wage increases and overtime.

Mr. Grisham reported results in fighting against separate contracts, improving bidding procedure, and various phases of labor relations.

In reviewing actions of the mid-year meeting of the Governing and Advisory Boards, Mr. Grisham referred to the October CONSTRUCTOR:

"Every member should take time out and scan this issue from cover to cover. It answers explicitly the question often asked—'What does the national A.G.C. do for me?' I can tell you, gentlemen, that the national A.G.C. does plenty for the industry—hence, for you."

He urged attendance at the national convention in Boston next February as "your obligation to yourself and to the industry."

Officers and directors of the Connecticut State Chapter shown at left are: seated, George R. Johnson, Hartford, Treasurer; A. Scott Paterson, New Haven, vice president; President Bray; outgoing President Wheeler, now a director; and A. J. M. Giardini, Hartford, secretary. Standing, A. D. Horn, Hartford, director; S. C. Gowrie, Meriden, director; Mr. Grisham; Richard Gowdy, Hartford, director; Edward F. Kelley, New Haven, director; Chester W. Moore, Torrington, director and William Noble, Jr., Naugatuck, director.

Massachusetts A. G. C. Elects

At a regular meeting on October 18, the A.G.C. of Massachusetts elected new officers for the year.

They are as follows: president, Charles B. Solomon; vice president, N. B. O'Conell; secretary, Victor M. Kjoss; and treasurer, Romeo E. Bossi; all of Boston.

Elected to serve on the executive committee for three-year terms are: Moses Slotnik, Boston; Arnold Conti, Lynn; and Jack Platt, East Cambridge. Allan E. Gifford is executive secretary.

Obituary

Roscoe C. Holmes, president of the New York State Chapter, A.G.C., was killed when the car in which he was riding collided with one of the trucks of his own firm.

Mr. Holmes, president of Holmes & Murphy, Inc., was 70 years old and had been in the construction business for 40 years. His firm has been an A.G.C. member for 25 years.

He lived in Orchard Park, New York, and is survived by his wife, his father, a daughter and two sons. Funeral services were held October 24 at the Orchard Park Presbyterian Church.

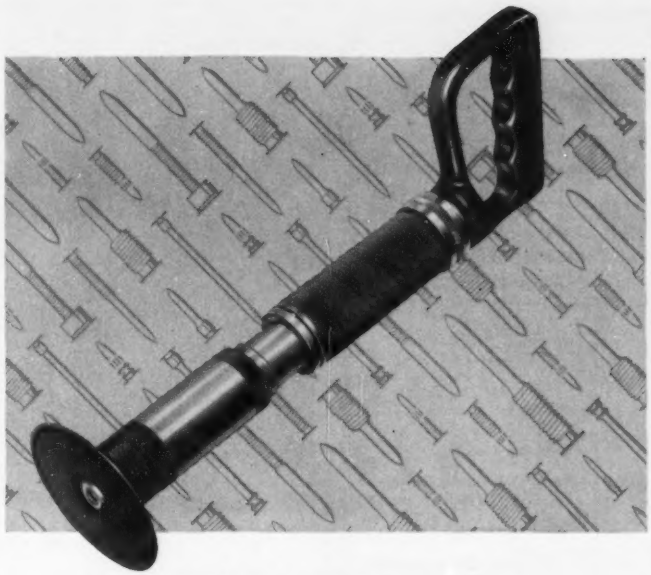
Ed Erbentraut died October 18 while in Reno inspecting a job site. He was a principal in the firm of Erbentraut & Summers, member of the Central California Chapter, A.G.C.

Mr. Erbentraut lived in San Francisco and was an active contributor to the Central California Chapter's functions.

M. O. Packard, Jr., died after a heart attack while visiting in Los Angeles. Mr. Packard lived in Phoenix, Arizona. He was president of the Packard Contracting Company, Arizona Chapter, A.G.C., and built many of the state's highways.

For many years he served on the board of directors of the Arizona Chapter, was a member of the Shrine, Masonic Lodge, and the American Society of Civil Engineers.

L. G. Lynch, former president of the Arizona Chapter, A.G.C., died August 19 while serving as project manager for the Morrison-Knudsen Company, Inc., on a job in Afghanistan.



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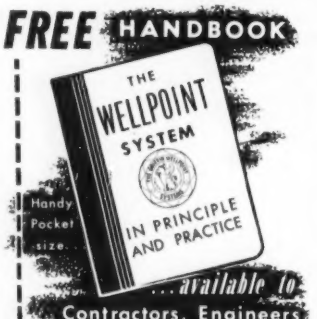

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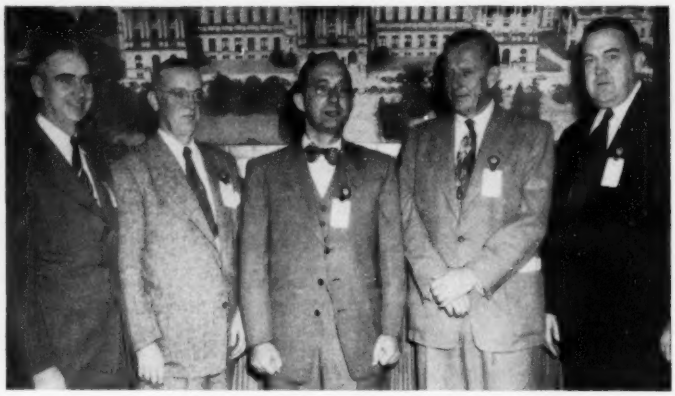


Pennsylvania Builders Elect Cremer

Members of the Pennsylvania Builders Chapter, A.G.C., were addressed by Welton A. Snow, manager of the national association's building division, during their annual meeting in October. His topic was "the Impact of War on Building Construction."

Shown above from left to right are: Ralph M. Ritter, Ritter Bros., Harrisburg, retiring president; A. E. Upton, Upton-Lang Company, Erie, new vice president; Robert D. Cremer, L. H. Focht & Son, Inc., Reading, president; Raymond S. Noonan, R. S. Noonan, Inc., York, new treasurer, and George M. Schmeltzer, executive director.

Other speakers, a Department of Commerce film, a number of acts, and the presentation of the accident prevention contest trophy to the R. S. Noonan firm were featured on the program.

H. S. Crain Heads Carolinas Branch in 1951

• Big Meeting Hears Many Speakers; Membership Gains

» DEVELOPMENT of high-speed construction methods and machinery is one of the several ways in which contractors can aid national defense, Rear Admiral Joseph F. Jelley asserted in his speech to the members and guests of the Carolinas Branch, A.G.C., during its 30th annual convention at White Sulphur Springs, West Virginia.

Admiral Jelley, Chief of the Bureau of Yards and Docks, emphasized that sacrifice, time and effort are needed to secure peace and insure protection of our ideals. Without them, money is almost useless, he indicated.

The convention was attended by more than 500 persons during its three-day session October 29-31. The successful meeting was sparked with added importance by the National Production Authority's Order M-4.

New officers elected are: president, H. S. Crain, Durham; vice president, C. P. Ballinger, Jr., Greenville; treasurer, C. P. Street, Charlotte.

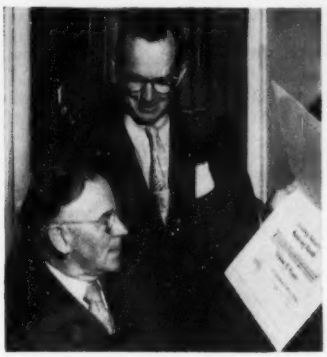
Addresses by Walter L. Couse, president, and H. E. Foreman, managing director of the national A.G.C., dealt principally with Order M-4 and steps taken by the association to have section 22.2 amended.

Lt. General Eugene Reybold, executive vice president of the American Road Builders Association, gave a talk outlining an 11-point program for the improvement of highway systems.

Retiring President N. K. Dickerson said a record volume of work had been performed during the past year in the Carolinas, during which time the branch increased its membership by 38 members. He said the integration of the Carolina Road Builders Association into the A.G.C. branch would be effected by the year's end.

Robert Patten, managing director, reported achievements of the organization during the year, among which was a successful public relations program, embodying press releases, advertisements, and talks.

Hague Receives Award



William E. Hague, former manager of the Central California Chapter, A.G.C., is shown receiving an honorary award from John S. Bolles, chairman of the Awards Committee, during the Building Industry Conference Board Achievement Award Dinner October 30, in San Francisco.

Mr. Hague, organizer of the B.I.C.B., was recognized for "outstanding contributions to the industry and for services to the community."

Henry J. Brunnier, nationally known San Francisco construction engineer, was presented an achievement award.

Re-elect Chicago Officers

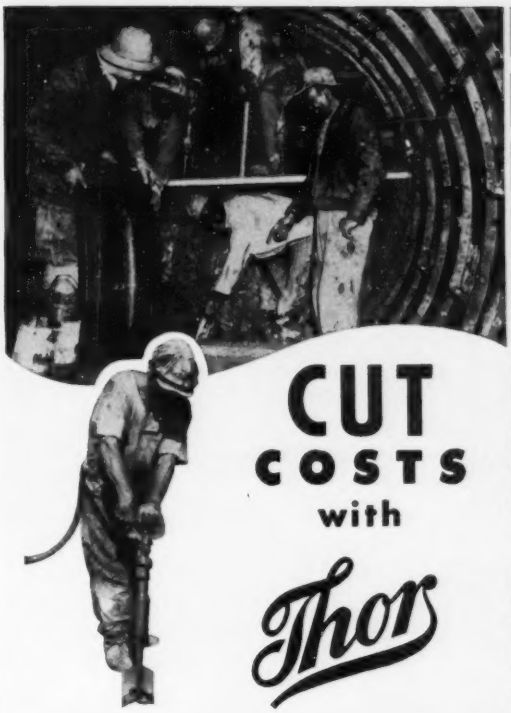
At a regular meeting held November 16, the Chicago Builders' Chapter, A.G.C., elected officers and directors. They are:

President, Royal L. Brockob; vice president, E. H. Marhoefer, Jr.; treasurer, Arthur H. Wells, all re-elected. H. Mayne Stanton continues as secretary-manager.

Directors are: A. L. Jackson, Gerhardt F. Meyne, William E. O'Neil and Charles W. Haynes.

Graham on School Board

Angus M. Graham, a director of the South Florida Chapter, A.G.C., has been appointed a member of the school board of Dade County, Florida. Mr. Graham is a resident of Miami and a principal in the firm of Graham-Keeling Corporation. Active in public affairs, he is also a member of the Builders Exchange, the Mahi Shrine, the Veterans of Foreign Wars, and the Edison Center Lions Club.



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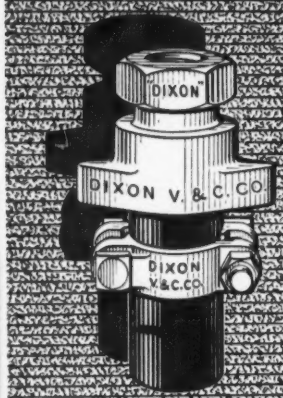

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A.G.C. Branch and Chapter Conventions

» ANNUAL meetings scheduled by chapters and branches of The Associated General Contractors of America, as reported to THE CONSTRUCTOR this month are:

Dec. 12, 1950. SEATTLE CHAPTER. Seattle. Const. Center Bldg.
Dec. 12-13, 1950. MASTER BUILDERS OF IOWA. Des Moines. Hotel Savery.
Dec. 14, 1950. MEMPHIS CHAPTER. Memphis. A.G.C. Building.
Dec. 15-16, 1950. NEW YORK STATE CHAPTER. Buffalo. Hotel Statler.
Dec. 18, 1950. SPOKANE CHAPTER. Spokane. Spokane Hotel
Dec. 20, 1950. A.G.C. OF MASSACHUSETTS. Boston. Hotel Touraine.
Jan. 9, 1951. THE MASTER BUILDERS ASSOC., INC., District of Columbia. Washington, D. C. Mayflower Hotel.
Jan. 9-10, 1951. PIPE LINE CONTRACTORS ASSOC. Houston. The Shamrock Hotel.
Jan. 10, 1951. GENERAL BUILDING CONTRACTORS ASSOC. Philadelphia.
Jan. 10-11, 1951. A.G.C. OF IOWA. Des Moines. Fort Des Moines Hotel.
Jan. 11, 1951. SAN DIEGO CHAPTER. San Diego. El Cortez Hotel.
Jan. 11-12, 1951. KANSAS CONTRACTORS ASSOC. Kansas City. President Hotel.
Jan. 11-13, 1951. A.G.C. OF MINNESOTA. Minneapolis. Radisson Hotel.
Jan. 12, 1951. ALABAMA BRANCH. Birmingham. Tutwiler Hotel.
Jan. 12-13, 1951. MONTANA BUILDING CHAPTER. Butte. Finlen Hotel.
Jan. 12-13, 1951. MONTANA CONTRACTORS' ASSOC., INC. Butte. Finlen Hotel.
Jan. 13, 1951. OKLAHOMA BUILDERS CHAPTER. Oklahoma City. Skirvin Hotel.
Jan. 17, 1951. DETROIT CHAPTER. Detroit. Detroit Athletic Club.
Jan. 17, 1951. LOUISVILLE CHAPTER. Louisville. A.G.C. Building.
Jan. 19, 1951. MILWAUKEE CHAPTER. Milwaukee. Schroeder Hotel.
Jan. 19, 1951. RHODE ISLAND CHAPTER. Seekonk. Hearthstone.
Jan. 19-20, 1951. INTERMOUNTAIN BRANCH. Salt Lake City. Hotel Utah.
Jan. 25, 1951. IDAHO BRANCH. Boise. Hotel Boise.
Jan. 26-27, 1951. COLORADO CONTRACTORS ASSOCIATION. Denver. Shirley-Savory Hotel.
Jan. 30, 1951. KANSAS CHAPTER, BUILDERS DIVISION. Topeka, Hotel Jayhawk.
Feb. 13, 1951. TACOMA CHAPTER. Tacoma. Winthrop Hotel.
Feb. 21-22, 1951. A.G.C. OF MISSOURI. Kansas City. President Hotel.

TENTATIVE DATES

Dec. 15-20, 1950. SOUTHERN CALIFORNIA CHAPTER. Los Angeles. Biltmore Hotel.
Dec. 16, 1950. NEVADA CHAPTER. Reno. 318 Professional Building.
Jan. 1951. ASSOCIATED BUILDING CONTRACTORS OF ROCKFORD, ILL. Rockford. Hotel LaFayette.
Jan. 1951. NEBRASKA BUILDING CHAPTER. Omaha. (Not selected.)
Jan. 12, 1951. BALTIMORE BUILDERS CHAPTER. Baltimore. Park Plaza Hotel.
Jan 15, 1951. NEW ORLEANS CHAPTER. New Orleans. (Not selected.)
Jan. 19, 1951. MOUNTAIN PACIFIC CHAPTER. Seattle. Benjamin Franklin Hotel.
Feb. 1951. A.G.C. OF WYOMING. Cheyenne. Frontier Hotel.
Feb. 1951. KENTUCKY HIGHWAY DIVISION. Louisville. (Not selected.)
Feb. 9, 1951. CONSTRUCTORS ASSOCIATION OF WESTERN PENNA. Pittsburgh. Hotel William Penn.
Feb. or March, 1951. METROPOLITAN BUILDERS ASSOC. New York City. (Usually at University Club.)
Mar. 7, 1951. HOUSTON CHAPTER. Houston. Ben Milam Hotel.
June 18, 1951. TEXAS HIGHWAY BRANCH. Austin. Austin Hotel.

New Chapter Forming

An Upper Peninsula Chapter of the Associated General Contractors of America is being formed in Michigan.

The chapter will be composed entirely of building contractors. Among those assisting in the formation of the chapter in cooperation with Gus Rayner, national field representative of the A.G.C., are L. A. Postel & Son and Champion, Inc., Iron Mountain; Herman Gundlach, Houghton-MacDonald and Kaake, Jacob Rintala, and Franz Menze, all of Marquette; Alfred Brandt, Escanaba; Albert Salen, Menominee; John Kielinen & Son, Ishpeming; P. J. Nickels, Ironwood; Kaysner Construction Company, and Cox-Dodd Construction Company, Sault Ste. Marie.

Foremen Meet on Safety

Direct contact with job bosses is the most practical method for achieving lower accident rates. Guided by this principle, the Constructors Association of Western Pennsylvania, A.G.C., holds a semi-annual banquet for the supervisory personnel of its members.

The fall dinner, held November 10 in Pittsburgh, mixed fun with business by featuring a comedy team along with speakers for the evening. The principal talk was given by H. O. Sprinkle, manager of operations of the Monongahela Power Company. He stressed the need for complete cooperation from the top, if a good accident prevention program is to be maintained. Also, he urged the supervisors to fully inform the men of their task and the hazards involved before work on any particular project began.

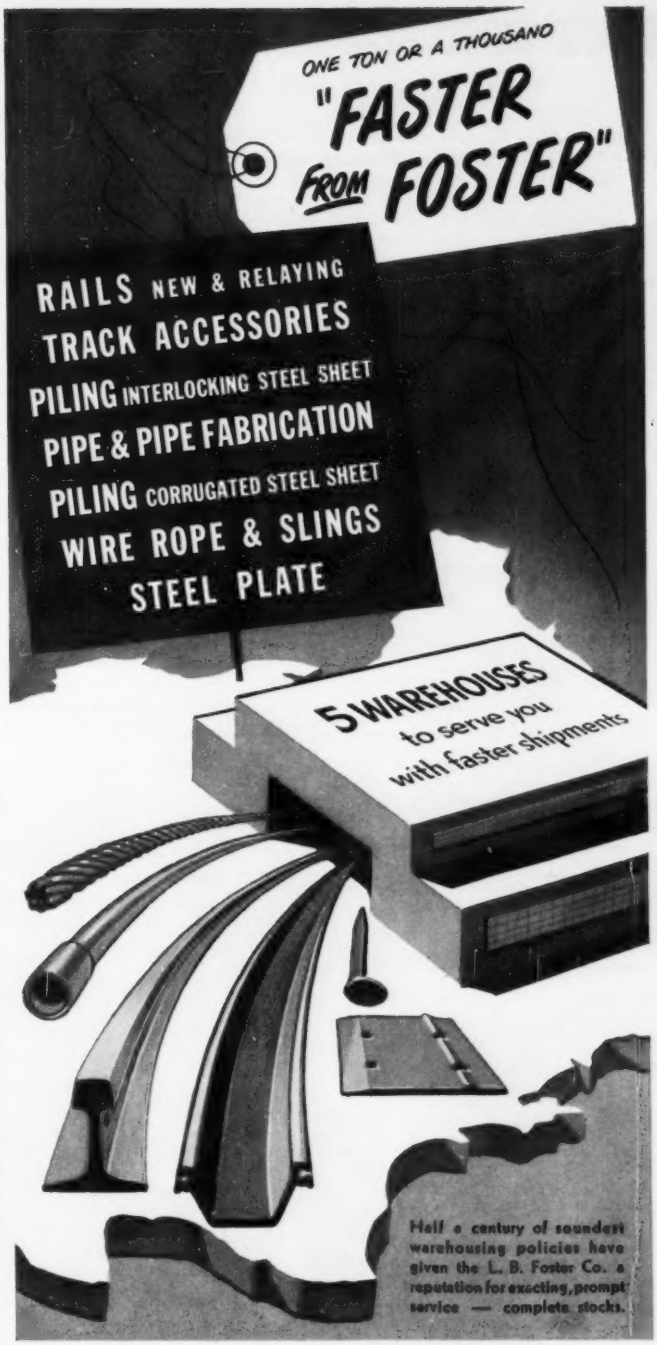
Among prominent guests from the field of accident prevention were Robert L. Moore of the National Safety Council, S. A. Abernathy, Safety Director of Allegheny County and Earl Stephan, Western Pennsylvania Safety Council.

Member Gets "Oscar"

The bronze brother of that effigy of Hollywood renown, "Oscar of Industry," was presented to Admiral Carl F. Cotter, president of Merritt-Chapman & Scott Corporation, A.G.C., for having the best annual report in the construction industry. Second place went to Morrison-Knudsen Company, A.G.C. The award is presented yearly by the Financial World Survey of Annual Reports. More than 5,000 annual reports were entered in this year's international competition in 100 industrial classifications.

Bortz Leaves Committee

George L. Bortz, vice chairman of the A.G.C. Accident Prevention Committee, is returning to his former job as resident vice president in Detroit for the Fidelity and Deposit Company of Maryland. In 1947, Mr. Bortz resigned that position to join the firm of F. H. Taylor Company, Detroit, a member of the A.G.C. When he reassumes his position with F&D, Mr. Bortz terminates his functions with the Accident Prevention Committee.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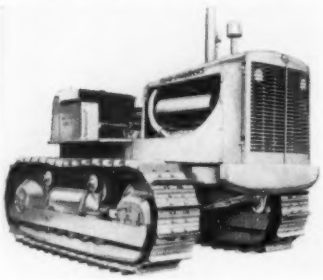
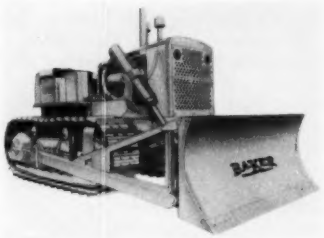
Tractor—*Allis-Chalmers Manufacturing Co., Tractor Division, Milwaukee 1.* HD-20 torque converter equipped tractor weighs 41,800 lbs. and is equipped with new 2-cycle G.M. 6-110 diesel engine. Operating adjustments, maintenance points and major assemblies are located so as to facilitate maintenance and repair. Positive-seal, grease-packed truck wheels, idlers and support rollers are serviced at factory and thereafter require greasing once every 1,000 hours.



Allis-Chalmers HD-20

Operator's seat affords maximum visibility to front and rear. Hydraulically powered steering levers offer finger-tip steering control. Brake pedals are adjustable and brakes are self-energizing. HD-20 has larger idler and sprocket, 106⅝" track, welded A-frame track stabilizer, double reduction final drive. Floating equalizer spring cushions main frame and engine from ground shocks.

Bulldozer Attachments—*Baker Manufacturing Co., Springfield, Ill.* Three new attachments, designed for use with Allis-Chalmers HD-20 tractor, are bulldozers, gradebuilders and root rippers, available in both hydraulic and cable-controlled models. Feature of attachments is "fingertip control," achieved through short linkage between blade control lever and hydraulic control valve. Baker features of direct lift, positive down-pressure and positive hydraulic "hold" have been retained in new hydraulic models. Other units for use with HD-20 are sheepsfoot tamping rollers, heavy-duty road rippers and power control units.



New Baker bulldozer for Allis-Chalmers HD-20

Goggle—*United States Safety Service Co., Kansas City 6, Mo.* All-plastic safety goggle, named "Saf-I-Duo" features one-piece plastic lens which is removable and interchangeable with "Saf-I-Spec," all-plastic safety spectacle. Lenses are available in clear or green. Goggle frame is made of soft Vinyl which is pliable enough to effect tight seal against face. Goggles will fit over personal glasses.

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LOWER COST!

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WELDED BUCKETS

Wellman Buckets cost less to maintain because they are ruggedly built. They deliver bigger payloads because they are properly designed. The superior engineering in Wellman Buckets gives the operator better balance, easier handling, cleaner digging. Wellman pioneered the unique construction that pays off in greater yardage at lower costs. There's a Wellman Bucket for every service.

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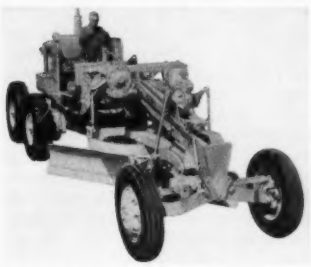
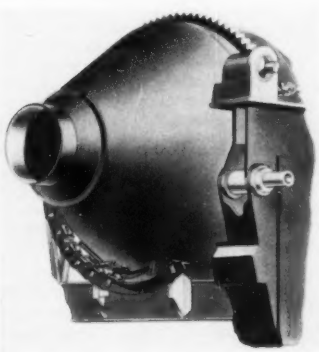
THE WELLMAN ENGINEERING COMPANY
7015 CENTRAL AVENUE CLEVELAND 4, OHIO

Grader—*J. D. Adams Manufacturing Co., Indianapolis.* Model 312 70 h.p. motor grader is powered by 70 h.p. International diesel engine and weighs from 18,285 to 19,800 lbs. depending on equipment. Features of grader are: full-floating rear axle, 8 overlapping forward speeds, faster mechanically operated controls, 12′ blade and high-arch front axle. Optional equipment includes hydraulic-mechanical power steering, V-type snow plow, snow wing and bulldozer. Described in bulletin, Form 508, available from manufacturer or dealers.



Adams 312 motor grader

Mixer—*Supremix, Inc., Adrian, Mich.* Mixer for central mix plants has tilting arrangement which permits its location low in structure. It tilts hydraulically and discharges into delivery equipment. Power source is external of tilting frame. Plant allows for 2 lines of traffic, one for central mixing and one for dry batching, using same scale and batching facilities. Blade arrangement effects rope action mixing of ingredients from ends of mixer. Operator's position is in front of mixer where he can see all functions.



Supremix tilting mixer

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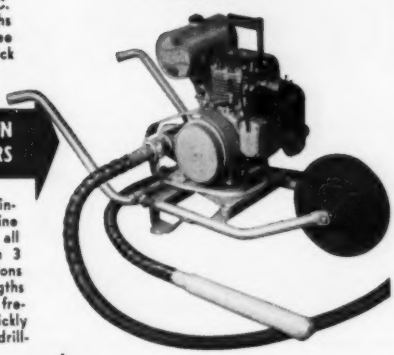
Jackson vibrators are the products of more than 27 years of specialization in this field, and are offered in a wide range of models to give you the vibrator that exactly suits your particular needs on every type of construction . . . the one that will give you the greatest savings in time, labor and money; plus UNMATCHED DEPENDABILITY.

FOR GENERAL CONSTRUCTION

THE POWERFUL, Handy JACKSON ELECTRIC

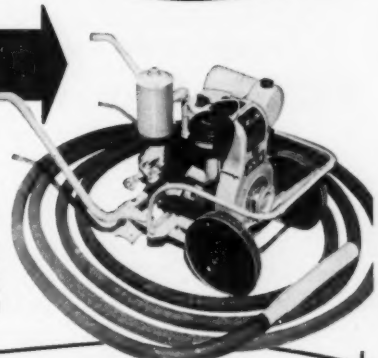
2½ HP Motor. Powerful enough to handle the stiffest mixes with maximum length of shaft (28'). Operates from light-socket; 115 volt, single phase AC or DC. 8,000 to 10,000 VPM. Weighs only 50 lbs. Available with three vibrator heads for thin or thick sections. Model No. FS-150A.

THE ACE OF ENGINE-DRIVEN FLEXIBLE-SHAFT VIBRATORS



Proved on countless jobs the finest of its class. 4.7 HP engine — plenty of power under all conditions. Available with 3 heads for thick or thin sections and shafting in 7' and 14' lengths up to 28'. Instantly variable frequency up to 7500 VPM. Quickly converted to grinding and drilling. Model FS-6A.

THE HYDRAULIC with the TIME-SAVING 50′ REACH



the hard-to-reach spots are easily accessible with this machine and much time is saved by eliminating changes of power unit location. All moving parts run in oil under pressure—no maintenance required. 7 HP engine and 2¾" head assures perfect compaction under most severe conditions. 4,000 to 7,000 VPM — instantly variable. The finest vibrator of its type money will buy.

FOR EVERY PHASE OF CONCRETE VIBRATION

from thin sections to mass construction and paving you will find the ideal Jackson Vibrator FOR SALE or FOR RENT at your Jackson Distributor. Write for your free copy of the "POCKET GUIDE" describing the complete line.

ELECTRIC TAMPER & EQUIPMENT COMPANY
LUDINGTON, MICHIGAN

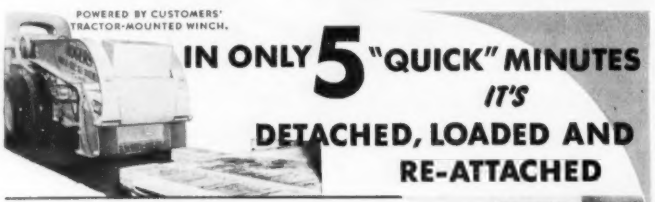
Trucks—*Ford Division, Dearborn, Mich.* Line of 1951 trucks includes more than 180 models featuring engineering, styling and safety improvements in 4 Ford truck engines, chassis changes and new "5-Star Extra" cab. Automatic "Power Pilot" carburetion-ignition control is provided on all engines. This system meters and fires correct amount of fuel at right instant under varying loads. Light-duty F-1 models have steering column gearshift, rear axle ratio of 3.92-to-1, re-designed 3-speed transmission. Distribution of braking force on F-4, F-5 and F-6 has been modified to obtain better balanced braking and longer lining life. Cast spoke wheels with demountable rims to provide interchangeability with trailer wheels are now standard on F-7 and F-8 models, but steel disc wheels are available. Engines have been improved to reduce operating costs and make them quieter.

Ford F-8 for 1951

Masonry Drill Bit—*New England Carbide Tool Co., 60 Brookline St., Cambridge 39, Mass.* "Cyclo-Twist" carbide-tipped masonry drill bit removes all dust as it drills by means of two spiral low-angle flutes turned in steel drill body. Diameter of body is same as diameter of hole to be drilled, giving maximum steel support to carbide tip. Drills are offered in sizes from $\frac{3}{16}$" to 1" up to 36" in length.

Garage Door—*Strand Garage Door Division, Detroit Steel Products Co., 3143 Griffin St., Detroit 11.* All-steel 9' wide garage door is constructed with one-piece door leaf and comes complete with packaged hardware that is factory-assembled. Door is equipped with new X-type steel bracing to add strength and rigidity to leaf. Door is made of galvannealed steel to protect against rust.

Trailer—*Athey Products Corp., 5631 W. 65th St., Chicago 38.* PD-20 trailer is designed for use with new Caterpillar DW20 diesel tractor. Design is similar to that of PD-10 series. Unit is constructed of high-strength steel and is of all-welded construction. Design is semi-bathtub type with tapered sides and one low side for loading and dumping. Unit can be equipped to dump either to right or to left. Body is dumped by hydraulic power supplied from tractor. Over-all length of tractor and trailer is 42'5⅝". Width is 12'2½" and height 9'6". Trailer has wheelbase of 24' and tread of 102". Clearance under frame is 24⅞". Bottom of wagon is constructed of double plate steel with oak fillers. Shock absorbers are rubber body pads similar to those on PD-10Q.



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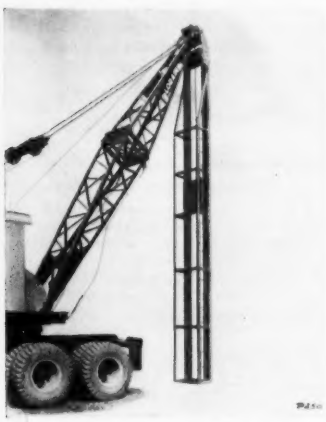
buy Christmas Seals

Because of the importance of the above message this space has been contributed by

The Constructor

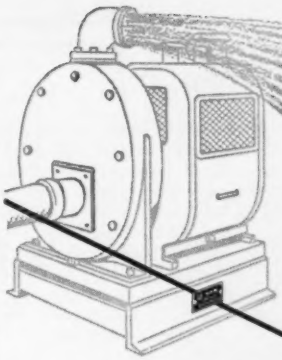
Pile Driver Leads—*Lewis Welding and Engineering Corp., Bedford, Ohio.* All-steel, all-welded pile driver leads and related accessory equipment are adaptable for use on crane booms of most machines of standard manufacture. Complete outfit consists of adapter plates, one-piece 30′ channel type leads with ladder, 2,500-lb. drop hammer, 14″ driving plug and follower cap. Also available are 20′ extension leads.



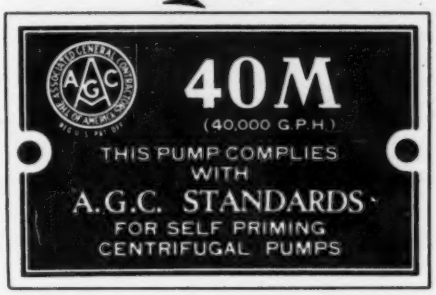
Lewis pile driver lead

Danger Flag Standard—*Industrial Products Co., 2064 N. 4th St., Philadelphia 33.* "Wind-Pruf" flag standard consists of 7″ diameter cast iron base, 13″x13″ red-canvas flag mounted on 32″ staff, non-rusting eye and ferrule at top of staff. Flag is held spread by spring steel stay inserted diagonally in canvas pocket. Eye at top of unit is used when making up barriers. Flag and staff separate from base.

Roller—*Southwest Welding & Manufacturing Co., Alhambra, Calif.* Compaction roller consists of series of weight-box units each equipped with wheel and tire. Units are filled with wet or dry sand, earth, steel scrap or other materials. As roller is towed over earth fills, units oscillate up and down and provide constant compaction weight on each tire. Sectionalized tubular yoke permits use of from 3 to 6 weight-box units. Compaction loads range up to 15 tons per tire. Welded box-type gooseneck permits short turning.



ACCEPTED STANDARDS



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The members of the pump bureau are competing for your business in the best American tradition of free enterprise. However, in the interest of the contractor, they have been able to establish certain basic standards for contractors' pumps. These standards are approved by A. G. C. and guaranteed by the manufacturers listed below because they give the user an assurance of performance that he needs to properly plan his work. These accepted standards give contractors a more certain tool to use in building a greater America.

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THE JAEGER MACHINE CO.
Columbus, Ohio

MARLOW PUMPS
Ridgewood, N. J.

ROYD ENGINE CO.
Lansing, Michigan

Trucks—*International Harvester Co., Motor Truck Division, 180 N. Michigan Ave., Chicago 1.* Two new service utility trucks feature "Aristocrat" bodies exclusively designed for L-110, L-120, L-130 or L-150 International chassis. Bodies are factory-mounted. They are of electrically welded, all-steel construction. Floor is of one-piece ribbed steel and is provided with drains. Weathertight vertical and horizontal compartments on left and right sides, recessed door handles, slam-action catches and cylinder locks which are keyed alike are features. Parts bins are provided in horizontal compartments on either side. Bins on left side have removable dividers. Tool and material trays are built-in and all compartment shelves and partitions have safety rolled edges. Model A-77 for 115″ wheelbase L-110 and L-120 trucks measures 77″ at floor line. Inside width is 48½″, outside width, 75″. Body height is 42″ and height above floor is 29″. Width of vertical compartments is 18½″. Model A-89 for 127″ wheelbase L-110 and L-120 series has 89″ floor line, 48½″ inside width, 75″ outside width, 42″ height, 29″ height of body above floor, 28¾″ vertical compartment width. Model A-96 for L-130 series, 134″ wheelbase, and L-150 series, 130″ wheelbase, both with single rear wheels, has following measurements: floor line, 89″, inside width, 48½″, outside width, 75″, height, 42″, height above floor, 29″. Optional equipment includes: free-sliding, telescopic-type steel roof and inverted endgate with locking handle; overhead ladder rack with tool and material brackets; removable vise bracket; pipe support mounted on right side of head panel; heavy-duty rear bumper and safety tread step; side-mounted pipe-carrying brackets.

International service-utility truck

Winch-Hoist—*The Lug-All Co., 331 E. Lancaster Ave., Wynnewood, Pa.* "Lug-All" 1½-ton alloy winch-hoist has 30-to-1 power ratio and weighs 8½ lbs. Standard features include pre-formed flexible aircraft cable, stainless steel fittings and springs and oiled-for-life bearings. Handle is reversible and removable. Combination of 3 swivel hooks and built-in pulley block allows work to be done around corners and as close as 10″ at ¾-ton rating. Hoist can be operated in any position and may be set for forward, reverse or free wheeling.

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A rational method of construction for elevated express highways, heavy underpasses, underground garages, containers and ducts carrying liquids.

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holds 90 lbs. in these two heavy rock drills, (instead of 70 lbs.)
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250 ft. of 100 lb. air behind a 3½" drill—drills as many feet in 2 days as 210 ft. of air will drill in 4.
drills 35% more footage per hour

75 - 125 - 185 - 250 - 365 - 600 ft.—these "new standard" sizes give you more air per dollar, more production per man

Tools that starve for air when they're hooked to "old standard" size compressors hit hard and fast and profitably with Jaeger's 15% to 25% more air.

From the Model 75, that runs a heavy breaker at full pressure, to the Model 600, that holds full pressure in two 4" wagon drills plus an auxiliary drill, Jaeger "Air-Plus" capacity increases production up to 30% to 40% with the same men and tools. If you are interested in "air-power" rather than "iron," increased production without increased payroll, and full profit instead of "break even"—

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BITUMINOUS and CONCRETE PAVING MACHINES

Power Tools—*Skilsaw, Inc., 5033 Elston Ave., Chicago 30.* Catalog lists more than 135 "Skil" electric and pneumatic tools and gives complete specifications, features and applications. Detailed product photos are included. Catalog is indexed.

Scaffolding—*Wilson-Albrecht Co., 3565 Wooddale Ave., Minneapolis 16.* Tubular-sectional steel scaffolding is presented in folder, Form PS-20. Assembly parts are illustrated and described, typical assemblies presented, and load tests are given. Safety rules are included. ¶Folder, Form PS-19, presents "Waco" scaffold jacks and sectional scaffolding, showing various assemblies and carrying illustrations of actual jobs.

Windows—*Detroit Steel Products Co., 3143 Griffin St., Detroit 11.* "Fenestra" steel security windows with steel guards are presented in Bulletin IND-9. It lists types and sizes of windows for stores, warehouses, laundries, gas stations, garages, small manufacturing plants. Installation details are shown.

Excavators—*Marion Power Shovel Co., Marion, Ohio.* Design and performance story of 111-M 4 cu. yd. shovel, dragline, crane is presented in Bulletin 402. Bulletin 401 presents 93-M Ward-Leonard electric machine which is equipped with electric controls for all major operating motions.

Shovel Teeth—*H & L Tooth Co., P.O. Box 330, Montebello, Calif.* Catalog pictures and describes alloy steel teeth for shovels, hoes, draglines, scarifiers, rippers, loaders, trenching machines. Information for ordering is given. One page contains instructions for changing points.

Buckets—*George Haiss Mfg. Co., 141st to 144th St. on Park Ave., New York 51.* Excavating and re-handling clamshell buckets are presented in Bulletin H-850. Construction features are detailed and tables give capacities and dimensions. Special features of buckets are described.

Drill—*Joy Manufacturing Co., Henry W. Oliver Bldg., Pittsburgh 22.* Bulletin D-28 describes 22-HD heavy-duty diamond core, 2,000-ft. capacity drill and gives complete specifications.

Hoists—Joy offers Bulletin 76-X on its line of single-drum hoists. Complete descriptions and specifications are given for hoists with capacities from 500 to 3,500 lbs. Selection chart is included.

Concrete Piles—*Western Foundation Corp., 2 Park Ave., New York 16.* Bulletin entitled *Concrete Piles and Caissons* features suggested standard specification for cast-in-place concrete piles. Described and illustrated are Western's "Button Bottom" piles, pedestal piles, composite piles, compressed concrete piles. Standard specification sheet is available separately.

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save time between jobs

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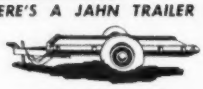
Tandem Axle Trailers


Single Axle Tilt Trailers

Single Axle Trailers

NEW LITERATURE

Lubricating Systems—*Lincoln Engineering Co., St. Louis 20.* Folder presents Lincoln's heavy-duty lubricating systems for contractors' machinery. Pumps for delivering lubricants from original refinery containers are described and pictured. "Lubrovans" for servicing equipment are described and standard equipment listed. Units for lubrication rigs are described and illustrated.

Diesel Engines—*Murphy Diesel Co., 5333 W. Burnham St., Milwaukee 14.* Booklet, entitled *10 Questions to Ask a Diesel Engine Salesman,* asks and answers 10 questions pertaining to diesel engine design and gives full mechanical details on Murphy Diesel line of engines.

Concrete Forming System—*Symons Clamp & Mfg. Co., 4259 W. Diversey Ave., Chicago 39.* Bulletin describes and illustrates in condensed form Symons forming system for concrete wall construction. Erecting and stripping advantages are explained. System and what it consists of is described. Assembly details and standard sizes are explained. Detailed information is given on wood, plywood, plywood with magnesium frames and all-magnesium forms. In addition, Symons form system service is explained.

Power Units—*International Harvester Co., 180 N. Michigan Ave., Chicago 1.* Folder, A-311-NN, entitled *A Change to International Power Makes Dollars and Sense,* describes applications for International line of engines and power units.

International H. P. Ratings

Three late model International crawler tractors recently tested were given maximum drawbar horsepower ratings considerably higher than those previously advertised by International Harvester Co. The TD-24 obtained a rating of 148.43, compared to its previously rated 140. The TD18A achieved a rating of 89.29, compared to its previous 87. TD14A exceeded its former rating of 60.5 h.p. with a new maximum rating of 65.9.

International has new folders available describing these tractors and giving the new horsepower ratings. Form A-611-NN covers TD-24; Form A-612-NN, the TD18A; Form A-613-NN, TD14A.

Contractor trims $19,000 ON A SINGLE BID

The successful bidder on more than 22 miles of highway sub-drainage for an eastern state figured the job two ways. First, he bid the job with short section, rigid pipe. Then by figuring an alternate bid using Armco Corrugated Metal Pipe he was able to reduce his original estimate more than $19,000.

No wonder more and more experienced contractors are being awarded desirable contracts with bids based on Armco Corrugated Metal Pipe. Figured on an ***installed*** basis, this pipe saves money in many ways.

Although amply strong, Armco Pipe often weighs only one-tenth as much as more massive types. This means low handling and hauling costs. Job costs go down because unskilled labor quickly makes the installation. There is no breakage, no curing, no delay.

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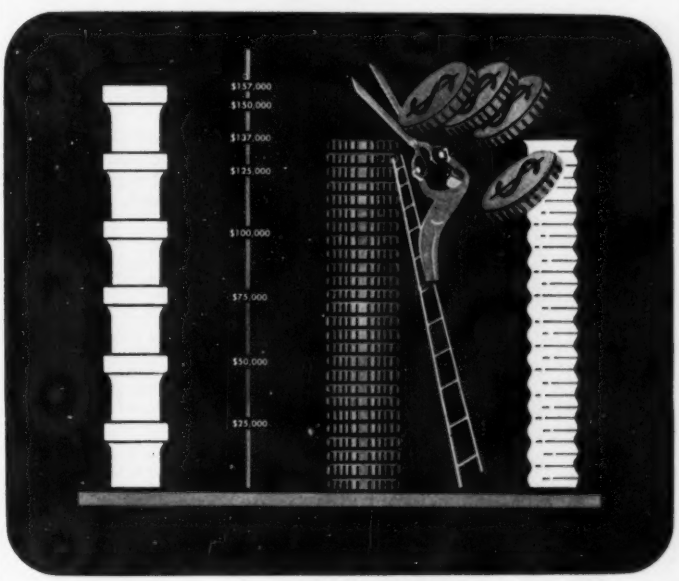

ARMCO DRAINAGE STRUCTURES

Edmund Fitzgerald, president of the Northwestern Mutual Life Insurance Co., has been elected a director of CHAIN BELT CO. He was named to fill the vacancy created by the death of Walter Kasten.

Dr. William P. Yant, director of research and development for MINE SAFETY APPLIANCES CO., has been elected president for 1950-51 of the American Society of Safety Engineers. . . . J. B. Davies, manager of the industrial department of Mine Safety Appliances, has been elected president for 1951 of the Veterans of Safety, an international organization of persons actively engaged full time in safety work for 15 years or more.

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TABLE OF ASTM A305 SPECIFICATIONS

		NOMINAL DIMENSIONS ROUND SECTIONS			REQUIREMENTS OF DEFORMATIONS		
Bar No.*	Unit Wt. Lbs./Ft.	Diameter-Inches Decimal	Cross Sectional Area Sq. Inches	Perimeter	Max. Avg. Spacing In.	Min. Height Inches	Max. Gap. Inches°
2†	0.167	0.250	0.05	0.785	.. ..	.. .	.. ..
3	0.376	0.375	0.11	1.178	0.262	0.015	0.143
4	0.668	0.500	0.20	1.571	0.350	0.020	0.191
5	1.043	0.625	0.31	1.963	0.437	0.028	0.239
6	1.502	0.750	0.44	2.356	0.526	0.038	0.286
7	2.044	0.875	0.60	2.749	0.612	0.044	0.334
8	2.670	1.000	0.79	3.142	0.700	0.050	0.383
9‡	3.400	1.128	1.00	3.544	0.790	0.056	0.431
10‡	4.303	1.270	1.27	3.990	0.889	0.064	0.487
11‡	5.313	1.410	1.56	4.430	0.987	0.071	0.540

*Bar numbers are based on the number of ⅛ inches in the nominal diameter of the section.
†Bar number 2 in plain rounds only.
‡Bars numbered 9-10-11 correspond to former 1" sq., 1⅛" sq., and 1¼" sq. sizes, and are equivalent to those former standard bar sizes in weights and nominal cross-sectional areas.
°Chord of 12 ½% of Nom. Perimeter.

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Producers of Construction Steel
LACLEDE STEEL COMPANY
St. Louis, Mo.

John E. Ehlert, formerly in the sales department of THE EUCLID ROAD MACHINERY CO., has been appointed manager of service and parts, succeeding J. M. Fairbanks, who has been promoted to assistant factory manager.

Harmon S. Eberhard has been named an executive vice president of CATERPILLAR TRACTOR CO. William Blackie, director of the merchandise department, will coordinate with Peoria the administration of the Joliet and San Leandro plants and Caterpillar Tractor Co., Ltd., new British subsidiary.

C. L. Best, chairman of the board of CATERPILLAR TRACTOR CO., recently awarded a 35-year pin to President Louis B. Neumiller in recognition of his work with the company since 1915.

Arthur M. Clark, vice president of NATIONAL SURETY CORP., having reached retirement age under the company's retirement plan, is relinquishing active duty as National's chief underwriter, a position he has held for many years. Vice President Carl A. Keppler succeeds him.

Albert E. Binger, Jr., has been appointed industrial sales manager of the PHILIP CAREY MFG. CO. He has been sales manager of the built-up roofing and paint department since early in 1949.

M. B. Garber has been appointed director of sales of THE THEW SHOVEL CO. J. T. Cushing has been named sales manager.

Dr. H. K. Ihrig has been elected vice president in charge of research of ALLIS-CHALMERS MANUFACTURING CO.

Harry G. Morrow, former sales manager for welded products for Spang-Chalfant Division of The National Supply Co., has been appointed vice president of L. B. FOSTER CO.

Louis G. Hilkemeier has been appointed chief engineer of the Construction Equipment Division of WORTHINGTON PUMP AND MACHINERY CORP.

Obituary

Julius S. Holl, advertising manager of Link-Belt Co. for almost 40 years, died October 24, after a prolonged illness. He was 64 years old.

Manufacturers' addresses are listed on page 71

Air-Entraining Agents
A. C. Horn Co.

Asphalt Plants (Portable)
Barber-Greene Co.
Iowa Mfg. Co.
White Mfg. Co.

Axles (Truck)
Eaton Mfg. Co., Axle Division

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Cleveland Trencher Co.
Harnischfeger Corp.
Parsons Co.

Batchers
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Butler Bin Co.
Construction Machinery Co.
Heltzel Steel Form & Iron Co.
C. S. Johnson Co.

Bearings (Anti-Friction, Tapered Roller)
Hyatt Bearings Division
Timken Roller Bearing Co.

Bins
Blaw-Knox Division
Butler Bin Co.
Heltzel Steel Form & Iron Co.
Iowa Mfg. Co.
C. S. Johnson Co.
Supremix, Inc.
Universal Engineering Corp.

Bits (Detachable Drill)
Ingersoll-Rand Co.
Timken Roller Bearing Co.

Blades (Grader, Maintainer, Snow Plow, Bulldozer, Scarifier)
Shunk Manufacturing Co.

Bridges
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Armco Drainage & Metal Products

Buckets (Clamshell & Dragline)
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Harnischfeger Corp.
C. S. Johnson Co.
Owen Bucket Co.
Wellman Engineering Co.

Buckets (Concrete)
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Heltzel Steel Form & Iron Co.
Jaeger Machine Co.
Owen Bucket Co.

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Sisalkraft Co.

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American Bridge Co.
Armco Drainage & Metal Products
Clinton Bridge Works
Gage Structural Steel Co.
Macomber, Inc.

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Smooth Ceilings System
Truscon Steel Co.

Bulldozers
J. D. Adams Mfg. Co.
Bucyrus-Erie Co.
R. G. LeTourneau, Inc.

Car Pullers
Clyde Iron Works

Ceilings
Smooth Ceilings System

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Lehigh Portland Cement Co.
Lone Star Cement Corp.
Universal Atlas Cement Co.

Cement (White)
Trinity White, General Portland Cement Co.
Universal Atlas Cement Co.

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Dixon Valve & Coupling Co.

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Ingersoll-Rand Co.
Jaeger Machine Co.

Concrete Curing Material
A. C. Horn Co.
Sisalkraft Co.

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Construction Machinery Co.
Foote Co.
Jaeger Machine Co.
Knickerbocker Co.
Koehring Co.
Kwik-Mix Co.
T. L. Smith Co.
Worthington Pump & Machinery Corp.—Ransome Div.

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Ingersoll-Rand Co.
White Mfg. Co.

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Chain Belt Co.
Iowa Mfg. Co.
Joy Mfg. Co.
Link-Belt Co.
Universal Engineering Corp.

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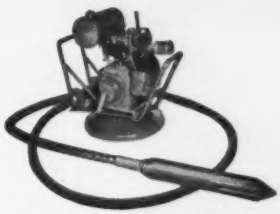
Bucyrus-Erie Co.
Cleveland Trencher Co.
Clyde Iron Works
Harnischfeger Corp.
Koehring Co.
R. G. LeTourneau, Inc.
Link-Belt Speeder Corp.
Michigan Power Shovel Co.
Northwest Engineering Co.



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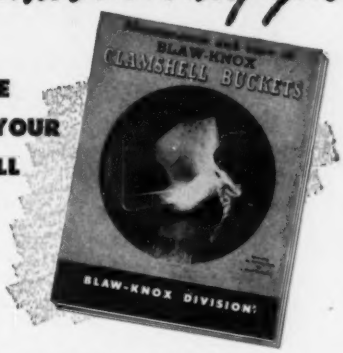

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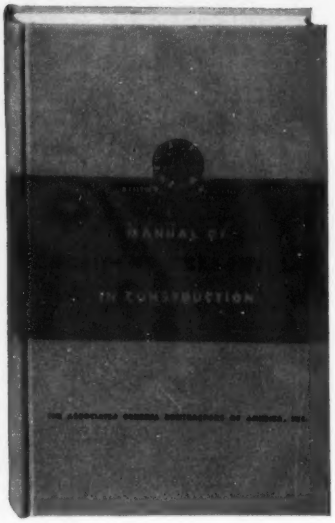

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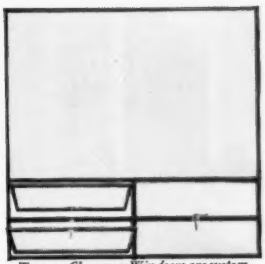

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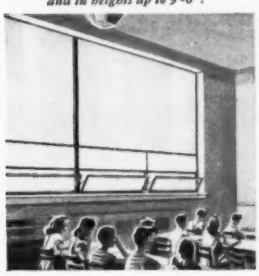

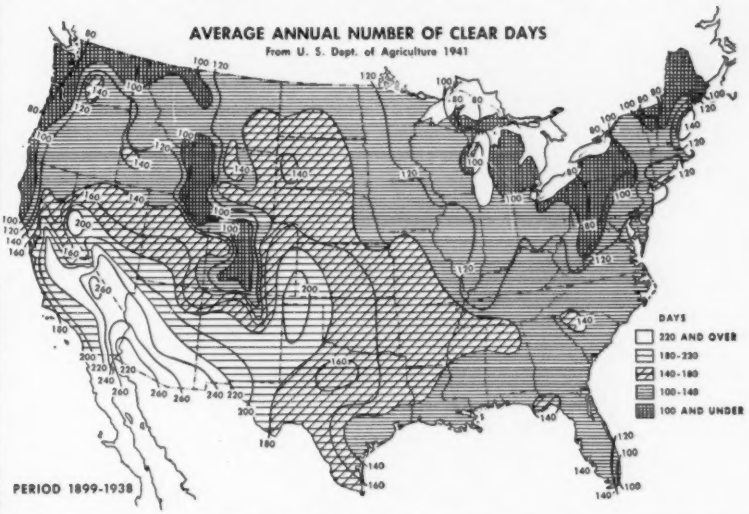

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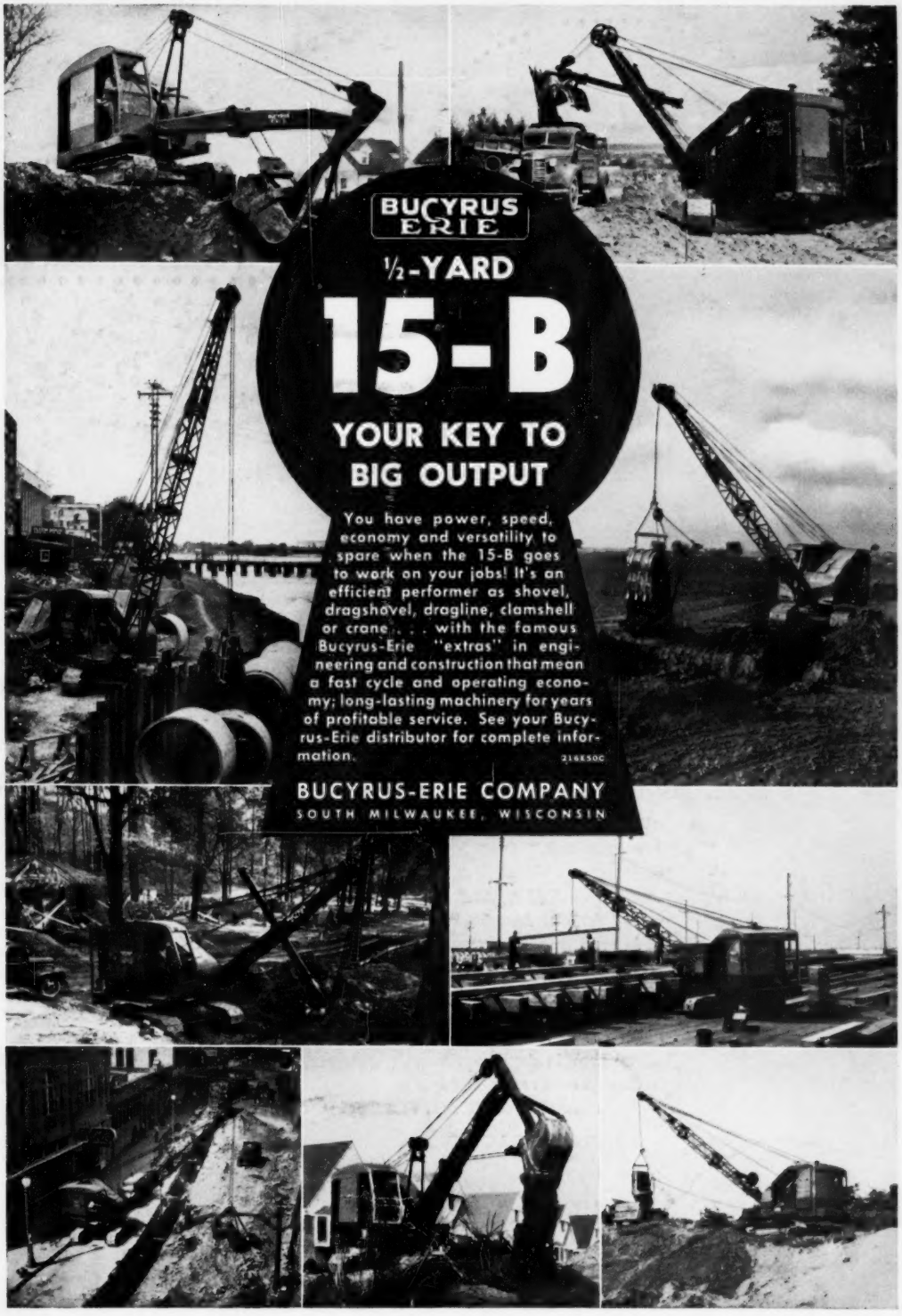
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